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# NOAA Technical Memorandum NMFS



SEPTEMBER 1987

# ICHTHYOPLANKTON AND STATION DATA FOR CALIFORNIA COOPERATIVE OCEANIC FISHERIES INVESTIGATIONS SURVEY CRUISES IN 1959

Elizabeth G. Stevens Richard L. Charter H. Geoffrey Moser Morgan S. Busby

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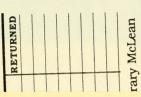


## NOAA Technical Memorandum NMFS

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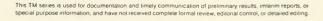
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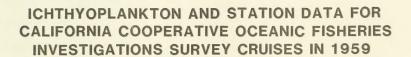
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#### ABSTRACT

This report provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) cruises conducted off California and Baja California in 1959. It is the ninth report in a series that presents these data for all biological-oceanographic CalCOFI surveys from 1951 to the present. A total of 2182 stations was occupied during 12 monthly multivessel cruises over the quarter-million square mile survey area which extends from the California-Oregon border to Cape San Lucas, Mexico and seaward to several hundred miles. The data are listed in a series of 6 tables; the background, methodology, and information necessary for interpretation and quantitative analysis of the data are presented in an accompanying text. All pertinent station and tow data, including volumes of water strained and standard haul factors are listed in the first table. Another key table lists, by station and month, standardized counts of each of the 155 larval fish categories identified from survey samples. This and previous and subsequent reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as quides to the newly developed computer data base.

#### INTRODUCTION

This report, the ninth of a series, provides ichthyoplankton and associated station and tow data from California Cooperative Oceanic Fisheries Investigations (CalCOFI) joint biologicaloceanographic survey cruises conducted in 1959. This program was initiated in 1949, under the sponsorship of the Marine Research Committee of the State of California, to study the population fluctuations of the Pacific sardine (Sardinops sagax) and the environmental factors that may play a role in such fluctuations. CalCOFI, known as the California Cooperative Sardine Research Program from 1949 to 1953, was made up of representatives of the South Pacific Fisheries Investigations (SPFI) of the U.S. Fish and Wildlife Service [now the La Jolla Laboratory, National Marine Fisheries Service (NMFS)], the Scripps Institution of Oceanography (SIO), the California Department of Fish and Game (CDFG), the California Academy of Sciences (CAS) and the Hopkins Marine Station of Stanford University. The first three of these agencies supplied ships and personnel to conduct the sea surveys. NMFS processed the plankton samples and analyzed the ichthyoplankton from them. SIO processed and analyzed the hydrographic samples and measurements and also analyzed invertebrate groups from the plankton samples.

The boundaries, station placement, and sampling frequency for the CalCOFI survey area were based on the results of joint biological and oceanographic cruises conducted by NMFS and SIO during 1939-41. Those cruises were designed to collect sardine eggs and larvae and associated hydrographic data over the entire areal and seasonal spawning range of the species. On these survey cruises, plankton tows were made to 70 m, a depth which

encompassed the vertical distribution of sardine eggs and larvae. Wide-ranging joint biological and oceanographic survey cruises were resumed in 1949 with sardine as the focus; however, an increasing interest in other biological components resulted in the deepening of standard tows to 140 m in 1951. This marked the beginning of truly quantitative ichthyoplankton sampling on CalCOFI surveys.

Data resulting from CalCOFI surveys in 1959 have been published in a number of forms. Hydrographic data (Reid et al., 1965), zooplankton volumes (Thrailkill, 1963; Smith, 1971), and ichthyoplankton data for selected species (Kramer, 1971) were presented in standard formats. The latter lists counts for eggs and larvae of sardine and for larvae of northern anchovy (Engraulis mordax), jack mackerel (Trachurus symmetricus), Pacific mackerel (Scomber japonicus), Pacific hake (Merluccius productus), and rockfishes (Sebastes spp.). Also, length frequencies are listed for sardine, anchovy, jack mackerel, and Pacific mackerel larvae. Distribution maps of eggs and larvae of 5 of these taxa taken on CalCOFI surveys during 1959 are presented in the CalCOFI Atlas series (Kramer and Ahlstrom, 1968; Ahlstrom, 1969; Kramer, 1970; Ahlstrom et al., 1978). Other atlases provided distribution maps of 6 mesopelagic fish larvae (Ahlstrom, 1972) and 8 flatfish taxa (Ahlstrom and Moser, 1975) taken during 1959.

A computer data base for eggs and larvae of sardine and anchovy and for larvae of hake, and the two mackerels was established in 1969. The development of a data base for other fish larvae is a complex undertaking because competency of identification has evolved steadily over the past 38 years. We began the task of producing a CalCOFI ichthyoplankton data base and associated data report series in 1983. All available original records for 1959 were subjected to an extensive verification and editing process to produce this report. This and previous (Ambrose et al., 1987a, b; Sandknop et al., 1987a, b,; Stevens et al., 1987a, b; Sumida et al., 1987a, b) and subsequent reports make the CalCOFI ichthyoplankton and station data available to all investigators and serve as guides to the computer data base. The data base will be modified when additional errors are discovered and when composite taxa from the earlier years are reidentified. These reports are the fundamental reference documents against which subsequent changes in the data base can be compared.

# SAMPLING AREA AND PATTERN

In 1959, CalCOFI survey cruises were conducted at monthly intervals. A total of 2182 stations included in this data base was occupied on 12 cruises, with an average of 182 stations per cruise (range of 39-270). This was the largest number of stations occupied on any annual CalCOFI plankton survey during the period 1951-1960. Coverage of the survey station pattern varied among cruises and the entire quarter-million

square mile survey area was not covered on any single cruise (Figures 1-13; Table 1). The area off northern California (lines 43-57) was covered on only one cruise, in October; 3 stations only were occupied in July. Coverage off central California (lines 60-70) was more consistent with stations occupied in January, April, May, July, and October. The area from just north of Pt. Conception, California to Pt. San Juanico, Baja California (lines 73 or 77-137) was surveyed monthly, except for March, when coverage began on line 83, and November and December when it extended south only to San Diego (line 93). The area off southern Baja California (lines 140-157) was surveyed in January, April (to line 147) and August (to line 153). Coverage extended seaward to station 145 (ca. 370-450 miles offshore) on two lines in May but typically did not extend beyond station 90 (ca. 160-250 miles offshore). Heaviest coverage was during January, April, May, and July when 250 or more stations were occupied on each cruise. Seventy-five or fewer stations were occupied in September, November, and December.

Seven vessels were employed on these cruises: the Black Douglas and Hugh M. Smith of NMFS and the Spencer F. Baird, Horizon, Orca, Paolina T, and Stranger of SIO. One to four vessels participated on each cruise with three being the usual number. The Orca was used on all cruises except 5911, the Black Douglas was used on 8 cruises (January, February, May-October), and the Paolina T was used on 7 (February-July, November). The other 4 vessels were used on a total of 6 cruises.

# SAMPLING GEAR AND METHODS

The standard CalCOFI net used from 1949 to 1969 had a 1-m diameter mouth opening (0.785  $m^2$  area) and an overall length of about 5 m. The net was constructed of 30xxx gauze, a heavy duty grade of silk bolting cloth, with a mesh size of 0.55 mm after shrinkage. The last 40 cm of the cone and the cod end were constructed of 56xxx grit gauze which had a mesh size of 0.25 mm after shrinkage. On parts of 2 cruises during 1959 (5901, 5908)

<sup>1</sup> CalCOFI lines (Figure 14) are arranged perpendicular to the coastline and extend from the Canadian border (line 10) to below Cape San Lucas, Baja California (line 157). Stations were established on the basis of a perpendicular to line 80 (off Pt. Conception) at a point designated as station 60. Stations were plotted seaward and shoreward from station 60 on each line. Cardinal CalCOFI lines (those ending in "0") are 120 miles apart and usually bracket two ordinal lines (ending in "3" or "7"), so that lines are 40 miles apart over most of the pattern. Cardinal stations are 40 miles apart and typically these are separated by a station number ending in "5" so that stations are 20 miles apart out to station 90 on most lines. Stations are placed at closer intervals near the coast and islands to accommodate these features (see Fig. 14 and Kramer et al., 1972 for further details).

the standard net was replaced with one constructed of nylon. Construction of the nets was similar; however, the nylon net had mesh sizes of 0.471 mm for the net body and 0.280 for the end of the cone and the cod end (Smith, 1971). The net ring was fastened to a short 3-lead bridle connected to several meters of line which attached to the towing cable by a clamp. A current meter was suspended in the center of the net mouth to measure volume of water filtered (see Kramer et al., 1972, for further details).

The standard tow from 1951 through 1968 was an oblique haul to 140 m depth (to 15 m of the bottom in shallow areas) designed to filter a constant amount of water per depth interval (ca. 3m<sup>3</sup>/m of depth) over the vertical range of most ichthyoplankters. Hauls were made at a ship speed of 1.5-2.0 knots and initiated by clamping the net line to the towing cable with the 45 kg terminal weight about 10-15 m below the surface. The net was lowered to 140 m depth by paying out 200 m of wire over a 4 minute period (35 m of depth/min.). After fishing at depth for 30 seconds, the net was retrieved at 20 m/min. (14 m depth/min.). The angle of stray of the towing cable was recorded every 30 seconds and maintained at 45° (+3°) by adjusting the ship speed and course. On the leg of Cruise 5908 occupied by the Hugh M. Smith, from line 130 south (see Table 1), tow depth was notably less than usual. There was difficulty in maintaining ship speed less than 2 knots, which caused the net to fish shallower strata than desired and resulted in low standard haul factors.<sup>2</sup> After reaching the surface, the net was washed down and the samples preserved in 5% formalin buffered with sodium borate. Flowmeter readings were made at the beginning and end of each tow. Detailed descriptions of gear and methods are given by Ahlstrom (1953), Kramer et al. (1972), and Smith and Richardson (1977).

# LABORATORY PROCEDURES

Laboratory processing began with the determination of a displacement volume for each sample (methods described in Staff, SPFI, 1953 and Kramer et al., 1972). Zooplankton volumes (including ichthyoplankton) of samples collected in 1959 are listed in Thrailkill (1963) and presented graphically in Smith (1971).

Sorting involved the removal of ichthyoplankton from the sample and identification and separation of eggs and larvae of selected species (see introduction). Usually, each sample was sorted completely; however, some of the samples were fractioned into aliquots using a Folsom plankton splitter (McEwen et al.,

<sup>&</sup>lt;sup>2</sup>Blackburn, M. Preliminary cruise report of CalCOFI Cruise 5908-M.

1954) prior to sorting. Several criteria<sup>3</sup> were used to determine whether a sample was fractioned: samples containing an abundance of thaliacians and coelenterates and exceeding 150 ml in total plankton volume were fractioned (to 50%, 25%, 12.5%, or 6.25%) to approximate a reduced volume of 50 ml for sorting; samples with an excessive quantity of fish eggs and/or larvae were occasionally fractioned to expedite the sorting process in order to meet scheduled deadlines. If the identified fraction of an aliquot yielded rare or interesting species of fish larvae, the remaining fraction was frequently sorted and identified with the intent of finding additional specimens. Aliquot percentages for fractioned samples from 1959 are listed in Table 1 under the "Percent Sorted" column; in 1959 less than 2% of samples were fractioned.

A "standard haul factor" (SHF) was calculated for each tow to make them comparable and allow estimations of areal abundance. This factor adjusts the number of eggs or larvae in a haul to the number in 10 m $^3$  of water strained per meter of depth fished. If the vertical distribution of the species has been encompassed, then the adjusted value is equivalent to the number under 10 m $^2$  of sea surface. The SHF is calculated for each haul by the formula:

$$SHF = \frac{10 D}{V}$$

 $V = \text{total volume of water } (m^3) \text{ strained during the haul}$ 

$$V = R \cdot a \cdot p$$

where R = total number of revolutions of the current
 meter during the haul

 $a = area (m^2)$  of the mouth of the net

p = length of column of water (m) needed to produce one revolution of the current meter.

Tow depth, volume of water strained, and standard haul factor are listed in Table 1 for each tow taken during 1959. Detailed descriptions of factors involved in calculating these values are presented in Ahlstrom (1948), Kramer et al. (1972), and Smith and Richardson (1977).

<sup>&</sup>lt;sup>3</sup>Personal communication, James R. Thrailkill, National Marine Fisheries Service, Southwest Fisheries Center, La Jolla, CA.

#### IDENTIFICATION

Identification of ichthyoplankton species beyond those separated during the sorting process was carried out by a separate group of specialists. Ontogenetic stages of fishes are inherently difficult to identify and this is further complicated by the large number and diversity of species which contribute to the ichthyoplankton of the California Current region. Most identifications were accomplished by establishing ontogenetic series on the basis of morphology, meristics, and pigmentation and then identifying these series by relating them to known metamorphic, juvenile, or adult stages with overlapping features (Powles and Markle, 1984). A total of 153 taxa was identified for 1959, with 82 taken to species, 33 to genus, 33 to family, and 5 to order. Some of the developmental series recognized originally could not be assigned scientific names, particularly in the Bathylagidae, Myctophidae, and Pleuronectiformes. These were given descriptive names, which later were changed to scientific names as they became known.

The task of producing a reliable and equitable ichthyoplankton data base required extensive procedures to verify, correct, and edit the original identifications. The primary data source was the original identification sheets (see Kramer et al., 1972, for examples); however, a critical resource used in all phases of this process was the CalCOFI ichthyoplankton collection in which the samples are archived. Throughout the course of CalCOFI ichthyoplankton studies, samples have been identified to the lowest taxon possible. In reviewing these identifications for the data base, our approach has been conservative and we have preserved those identifications and counts which we could confirm, while correcting as many of the errors as possible. During the coding of the identification sheets, the "descriptive types" were assigned scientific names and reexamined, if necessary. After computer entry, taxonomic errors and inconsistencies in the data base were corrected and the most obvious identification errors were corrected. Our current knowledge of ichthyoplankton techniques coupled with a precise understanding of the development of identification competency in the program over the years allowed us to critically judge the historical records. Identifications were changed to different taxa, lumped to a higher taxonomic category, or given a more precise taxonomic name. In many cases, identifications of a taxon were inconsistent among cruises in a year, because of varying competency of identifiers. These records were made equitable by lumping to the higher taxonomic category to avoid biases that could result in quantitative misinterpretations.

Next, statistical, seasonal, and geographic outliers were identified, employing a series of graphic summaries and listings. Examination of geographic outliers proved to be especially effective because of our accumulated knowledge of species distributions. In the course of examining samples for these outliers, other identification errors were discovered and eventually all taxa were scrutinized to some extent. Lastly,

- certain taxa were reexamined in all samples for the entire CalCOFI time series. These taxa were selected because of their commercial, ecological, phylogenetic, or zoogeographic importance or because taxonomic confusion was at the ordinal level. The following is a list of the taxa for 1959 which received special attention, with explanations and caveats intended to aid in quantitative interpretations:
- Anguilliformes tentative and sporadic identifications to family or lower taxon lumped to order.
- Sardinops sagax all specimens south of line 120 checked for misidentification of Opisthonema spp.
- Engraulidae includes nearshore taxa (mostly Anchoa spp.) large
   enough to separate from Engraulis mordax. Some nearshore
   samples of small E. mordax may contain other anchovy genera,
   but could not be differentiated.
- Nansenia spp. all specimens checked and identified as N. candida or N. crassa; all specimens of these species near their range boundaries checked.
- Sternoptychidae tentative and sporadic identifications of hatchetfishes to genus were lumped to family.
- Bathophilus spp. all specimens checked.
- Tactostoma macropus all specimens checked.
- Scopelarchidae tentative and sporadic identifications to genus lumped to family.
- Lampanyctus spp. tentative and sporadic identifications to species (mostly descriptive types) lumped to genus; identification of L. regalis and L. ritteri begun in 1954.
- Lampanyctus regalis underrepresented because of inability to differentiate small larvae (<5 mm) from those of other species of the genus; counts may include other species of the genus because of difficulty in identifying larvae of this large and complex genus.
- Lampanyctus ritteri comment for L. regalis applies to this species.
- Diogenichthys atlanticus all specimens at margins of range checked.
- Diogenichthys laternatus all specimens at margins of range checked.
- Electrona rissoi recognition of this species was inconsistent and others may be included in Protomyctophum crockeri or Myctophidae.

- Hygophum spp. all specimens reidentified to species; residuals
   are small, poorly preserved specimens.
- Myctophum aurolaternatum all specimens checked; originally
  identified as "Astronesthidae".
- Protomyctophum crockeri some samples on northern lines may contain P. thompsoni, which was not identified at the time; specimens below line 130 checked.
- Bregmaceros spp. all gadiform types (see Index), except
  Merluccius productus and Macrouridae, reexamined.
- Ophidiiformes this category did not exist originally and ophidiiform larvae were included in Brosmophysis marginata, Carapidae, "Otophidium", "Zoarcidae", and "blenny"; identifications of B. marginata and Carapidae proved to be mostly correct and "Zoarcidae" to be a yet unidentified ophidiiform species; all "Otophidium" and "blenny" were reexamined; the former included primarily Ophidion scrippsae; "blenny" contained O. scrippsae, C. taylori, and other ophidiiform taxa in addition to true blennioids.
- Ceratioidei identifications of this group were inconsistent and additional specimens may be in the unidentified fish larva category.
- Lophiidae specimen checked.
- Trachipteridae tentative and sporadic identifications to genus were lumped to family.
- Melamphaes spp. all identifications ascribed to Melamphaidae were reexamined and assigned to genus (Melamphaes, Poromitra) or species (Scopelogadus bispinosus); larvae originally identified as Melamphaes spp. were not reexamined and this category may contain other melamphaid genera.
- Cottidae some samples may include specimens of Scorpaenichthys marmoratus, hexagrammids (e.g., Oxylebius pictus, Zaniolepis spp.), and some blennioids (e.g., Hypsoblennius spp.).
- Oxylebius pictus all specimens checked; some reassigned to Zaniolepis spp.
- Zaniolepis spp. all specimens checked; some reassigned to Oxylebius pictus.
- Sebastes spp. category includes other scorpaenid genera, serranids, and other spiny-headed shorefishes, particularly in samples south of line 120.
- Sebastolobus spp. this category is underrepresented and additional specimens may be in Sebastes spp.

- Hypsoblennius spp. some specimens may remain in Cottidae.
- Clinidae some specimens remain in Cottidae or unidentified fish larva category.
- Labridae tentative and sporadic identifications to genus were lumped to family.
- Pomacentridae specimens checked; now includes species other than Chromis punctipinnis, primarily in the south.
- Chromis punctipinnis records south of about line 120 may
   include other pomacentrid taxa.
- Mugil spp. all specimens checked.
- Apogonidae all specimens checked.
- Carangidae all specimens checked; tentative and sporadic identifications to genus or species (except *Trachurus symmetricus*, *Seriola lalandi*, and *Seriola* spp.) were lumped to family.
- Seriola spp. specimens checked; probably S. rivoliana.
- Seriola lalandi all specimens checked.
- Gerreidae tentative and sporadic identification to genus were lumped to family.
- Haemulidae tentative and sporadic identification to genus were lumped to family.
- Girella nigricans all specimens checked.
- Medialuna californiensis all specimens checked.
- Caulolatilus princeps all specimens checked.
- Mullidae all specimens checked.
- Priacanthidae specimen checked.
- Sciaenidae tentative and sporadic identifications to genus lumped to family.
- Scombridae all larvae identified to this family or constituent taxa (except Scomber japonicus) were reexamined and reassigned when necessary.
- Nomeidae tentative identifications to genus lumped to family.
- Pleuronectiformes all available specimens of this category (originally called "flatfish") were examined and

- reidentified; residuals are small, poorly preserved specimens.
- Bothidae all specimens examined and reassigned; most were assigned to various paralichthyid genera or to *Bothus* spp.
- Citharichthys spp. all larvae identified to genus or to a species of the genus from 1954 to 1960 were identified to species; residuals are small, poorly preserved specimens, or those with variable taxonomic characters.
- Etropus spp. larvae of this taxon were originally lumped with Citharichthys spp.; present records result from complete reidentification of Citharichthys spp.
- Hippoglossina spp. all specimens of this genus (originally
   called "pigmented bothid") were examined and assigned to H.
   stomata.
- Paralichthys spp. all specimens of this genus were examined and
   most were assigned to P. californicus or Xystreurys
   liolepis.
- Syacium ovale all specimens examined (originally called "spinyheaded bothid").
- Xystreurys liolepis originally misidentified as Paralichthys californicus; all specimens reidentified.
- Glyptocephalus zachirus all specimens examined.
- Microstomus pacificus all specimens examined.
- Pleuronichthys spp. all larvae of this genus and constituent
   species were examined and assigned to species; residuals are
   small, poorly preserved specimens.
- Psettichthys melanostictus all specimens examined.

### COMPUTER ENTRY AND EDITING

Each taxon on the original identification sheets was given a 3-digit code based on the list of codes in Haight et al. (1979). Taxon codes and counts from these sheets were keypunched by cruise and station, along with pertinent station and tow data and entered into the VAX 11/780 computer at the University of California, San Diego Computing Center. After entries were completed for an entire year, print-out listings of taxa and counts on each station were compared with the original data sheets to eliminate keypunch errors. Next, data in the file were cross-checked with data on an existing file which contained: station and tow data; numbers of eggs of sardine, anchovy, and saury (Cololabis saira); numbers of larvae of sardine, anchovy,

hake, jack mackerel, and Pacific mackerel; total number of fish eggs; and total number of fish larvae.

Discrepancies in ichthyoplankton data in these two files were corrected by inspecting original records from the sorting laboratory, the original ichthyoplankton identification sheets, and the samples themselves. Station and tow data discrepancies between the two files were corrected by reviewing ships' logs and deck tow sheets, original records from the sorting laboratory, cruise announcements, publications, header information on the ichthyoplankton identification sheets, and station plots generated for each cruise. Eventually all station and tow data were checked by comparing these sources.

The corrected ichthyoplankton data base was then examined statistically and outliers were found and checked as above. Distributional plots were then prepared for each taxon and these were checked by reviewing the data sources mentioned above and by examining archived specimens. A listing of each taxon by station (Table 4) was produced, which became the primary document for subsequent checks. Misidentifications found in geographic outlier checks and other misidentifications and data problems discovered in the course of examining archived samples resulted in several iterations of Table 4. Finally, totals in Table 4 were checked against annual summaries of incidence and abundance (Tables 2 and 3). Ecological analyses of the data (Moser et al., 1987) were conducted concurrently with editing procedures and provided cross-checks that allowed correction of errors.

#### SPECIES SUMMARY

Larvae of northern anchovy (Engraulis mordax) represented 44% of all fish larvae taken on CalCOFI cruises during 1959 and ranked third in number of occurrences (Tables 2, 3). The second most numerous species was the gonostomatid Vinciguerria lucetia, with 25% and the third was the myctophid Triphoturus mexicanus, with 7.2%; these species ranked first and second in occurrences. The first three species in both rankings accounted for more than 76% of all fish larvae collected in 1959. Pacific hake ranked 4th in numbers (3.8%) and 11th in occurrences; rockfish, Sebastes spp., ranked 5th in both number (2.4%) and occurrences. deepsea smelt, Leuroglossus stilbius, ranked 6th in number and 13th in occurrences and three lanternfishes, Stenobrachius leucopsarus, Diogenichthys laternatus, and Ceratoscopelus townsendi ranked 7th, 8th, and 10th in numbers. The sardine, Sardinops sagax, ranked 9th (1.1% of larvae) but was 23rd in occurrences. Jack mackerel, Trachurus symmetricus, ranked 11th in numbers and 14th in occurrence. The 10 top-ranking taxa contributed 90% of all larvae taken during 1959; the remaining 10% was represented by 143 taxa plus the unidentified and disintegrated categories. Of the 10 most abundant taxa in 1959, 2 were coastal demersal species or genera, 6 were midwater species, and 2 were coastal pelagic species.

# EXPLANATION OF TABLES

- Table 1 This table lists by cruise the pertinent station and tow data for 1959, the volume of water filtered and standard haul factor for each tow, the percent of sample sorted, and the total numbers of fish eggs and larvae. CalCOFI cruises are designated by four digits; the first two indicate the year and the second two the month. Within each cruise the data are listed in order of increasing line and station number (southerly and seaward directions); the order of station occupancy is shown on the station charts (Figures 2-13). Stations are designated by two groups of digits; the first set indicates the line and decimal fraction and the second set indicates the station on the line. fractions were used only on Cruise 5909. Decimal Time is listed as Pacific Standard Time at the start of each tow in 24-hour designation. Methods for determining tow depth, volume of water strained, standard haul factor, and percent sorted were described in the methods section. The values for total fish eggs and larvae represent raw counts (unadjusted for percent sorted or standard haul factor). The total egg number for station 73.51, Cruise 5902, >99,990, indicates that estimated number of approximately 100,000 was arrived at by counting an aliquot. Ship codes are as follows: BD, Black Douglas; SB, Spencer F. Baird; HO, Horizon; OR, Orca; PT, Paolina T; HS, Hugh M. Smith; ST, Stranger.
- Table 2 This table lists pooled occurrences of all larval fish taxa taken during 1959 in ranked order.
- Table 3 This table lists pooled counts of all larval fish taxa taken during 1959 in ranked order. Numbers are adjusted for percent sorted and standard haul factors.
- Table 4 This table gives numbers of fish larvae for each taxon, listed by station and calendar month in which the tow was taken. Counts are adjusted for percent of sample sorted and standard haul factor. Average values are given for stations occupied more than once during a month. See Table 1 for station and tow data and Table 6 for listing of stations with multiple occupancies during a month. Multiple occupancies occurred when a station was occupied more than once in the same calendar month; in some cases multiple occupancies resulted from separate cruises. The orders are listed in "phylogenetic" sequence modified from Nelson (1984). Subtaxa within each order are listed alphabetically. Page numbers for each taxon are given in the index at the end of the report.
- Table 5 This table is a summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1951 to

1960. Taxa are listed in the same order as in Table 4.

Table 6 - List of stations with multiple occupancies in one month during 1959.

#### ACKNOWLEDGMENTS

Lois E. Hunter identified larvae from 9 cruises, about 84% of all samples collected in 1959; E. H. Ahlstrom and David Kramer identified the remaining samples. Ronald Whyte and Douglas Hammond coded each larval fish taxon or type and entered them into the computer. Debby Snow efficiently assisted in all aspects of data editing and retrieval. Cindy Meyer, Larry Zins, and James Ryan provided programming assistance. Dorothy Roll designed the CalCOFI data acquisition system and provided data processing support. Ken Raymond, Roy Allen, and Henry Orr helped with graphics and production of the report. Lorraine Prescott and Diane Forsythe prepared the manuscript for printing. Smith determined statistical outliers, provided assistance during geographical outlier checks and offered helpful suggestions throughout the project. Izadore Barrett, Director of the Southwest Fisheries Center and Reuben Lasker, Chief, Coastal Fisheries Resources Division, SWFC, provided the support critical to the completion of the project. James Thrailkill planned CalCOFI surveys and supervised cruises, data handling, and plankton sorting from 1949 to 1986 and is largely responsible for the high quality of these operations. Without the vision and direction of Elbert Ahlstrom and Elton Sette and the dedicated efforts of the many people who collected, processed, and analyzed the samples, this data base would not exist.

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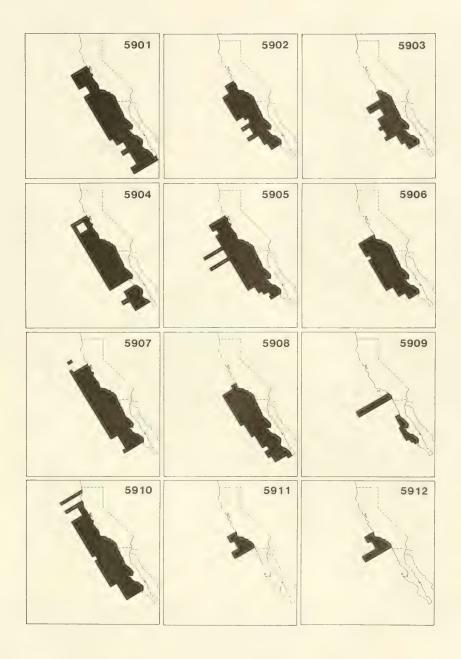


Figure 1. Composite arrangement of diagrammatic charts showing areas sampled on each CalCOFI cruise during 1959.

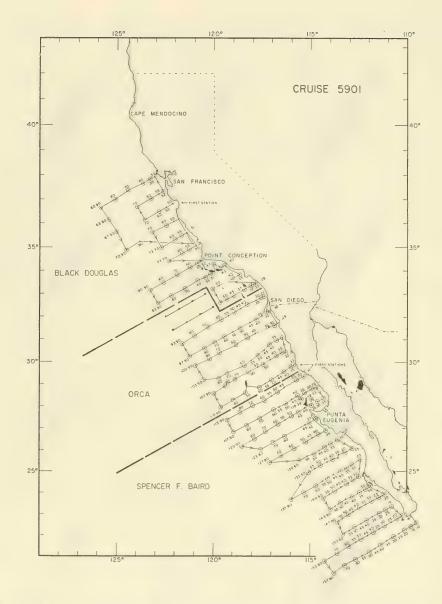


Figure 2. Station pattern for CalCOFI Cruise 5901 showing tracks for each vessel. Stations with plankton tows only are indicated by a dot; those with plankton tows and hydrographic measurements are shown by a dot and circle. Modified from charts in Reid et al. (1965) to include only those stations listed in Table 1 of this report.

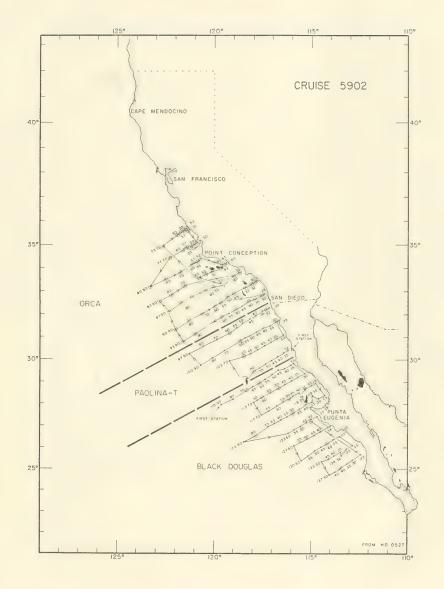


Figure 3. Station pattern for CalCOFI Cruise 5902. Symbols as in Figure 2.

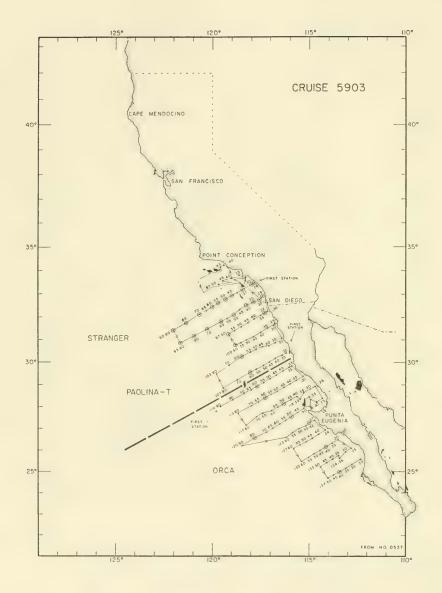


Figure 4. Station pattern for CalCOFI Cruise 5903. Symbols as in Figure 2.

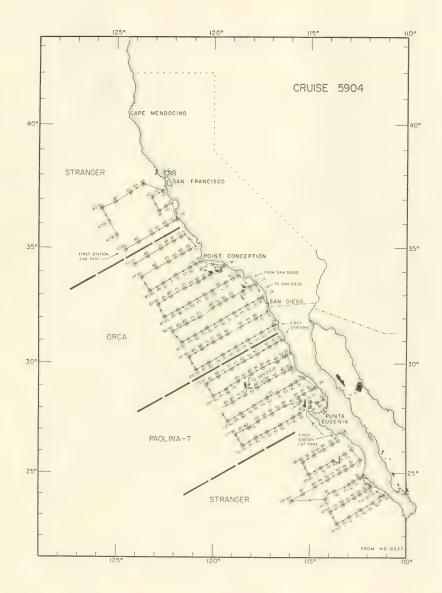


Figure 5. Station pattern for CalCOFI Cruise 5904. Symbols as in Figure 2.

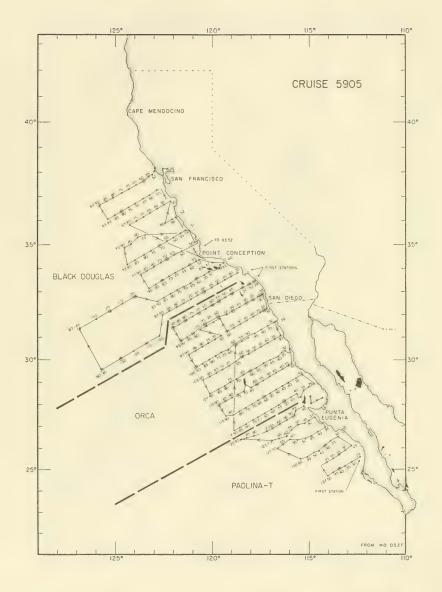


Figure 6. Station pattern for CalCOFI Cruise 5905. Symbols as in Figure 2.

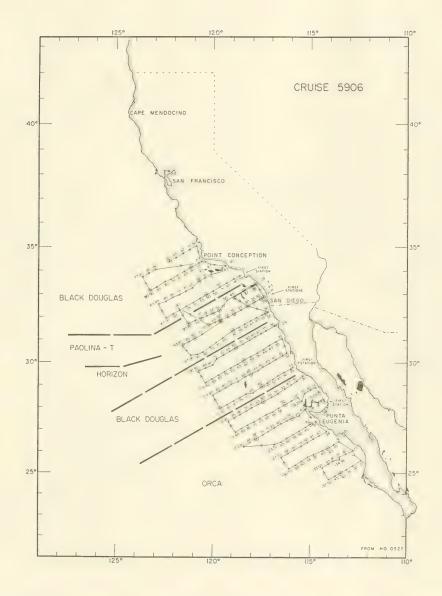


Figure 7. Station pattern for CalCOFI Cruise 5906. Symbols as in Figure 2.

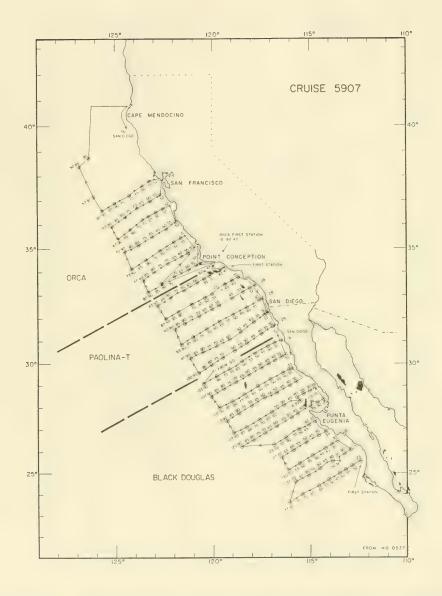


Figure 8. Station pattern for CalCOFI Cruise 5907. Symbols as in Figure 2.

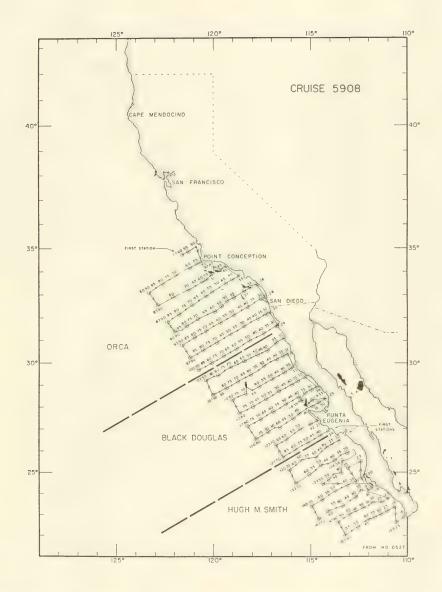


Figure 9. Station pattern for CalCOFI Cruise 5908. Symbols as in Figure 2.

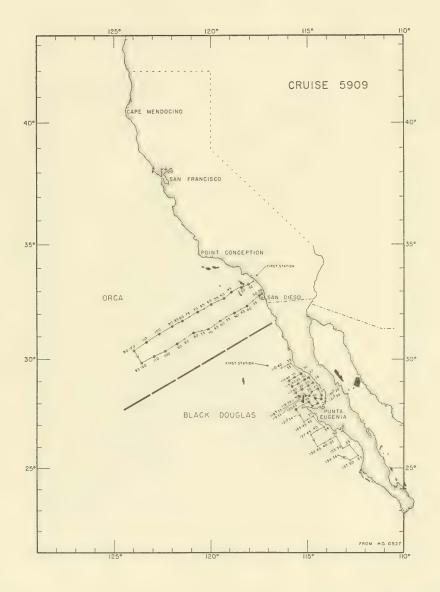


Figure 10. Station pattern for CalCOFI Cruise 5909. Symbols as in Figure 2.

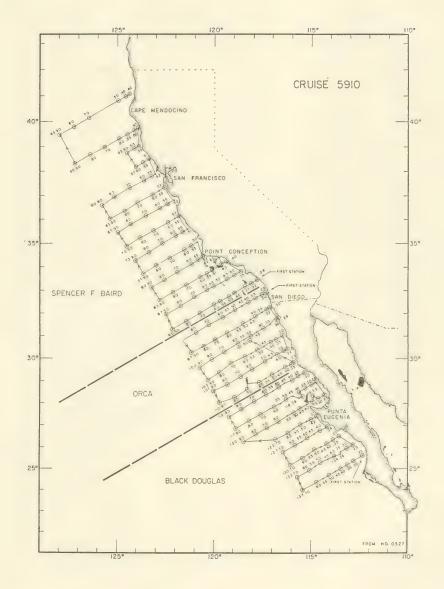


Figure 11. Station pattern for CalCOFI Cruise 5910. Symbols as in Figure 2.

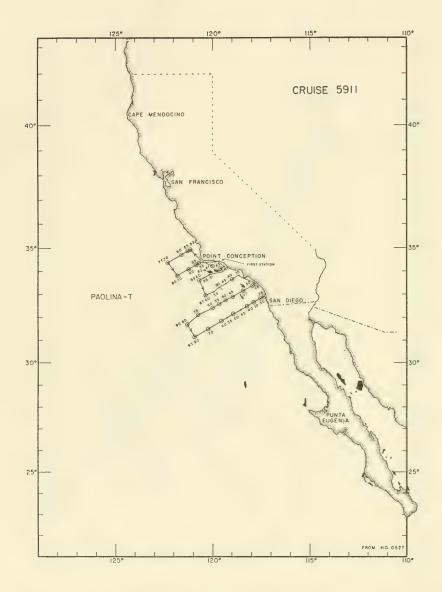


Figure 12. Station pattern for CalCOFI Cruise 5911. Symbols as in Figure 2.

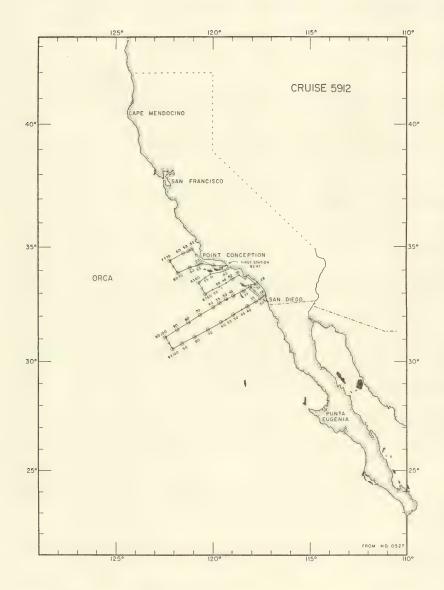


Figure 13. Station pattern for CalCOFI Cruise 5912. Symbols as in Figure 2.

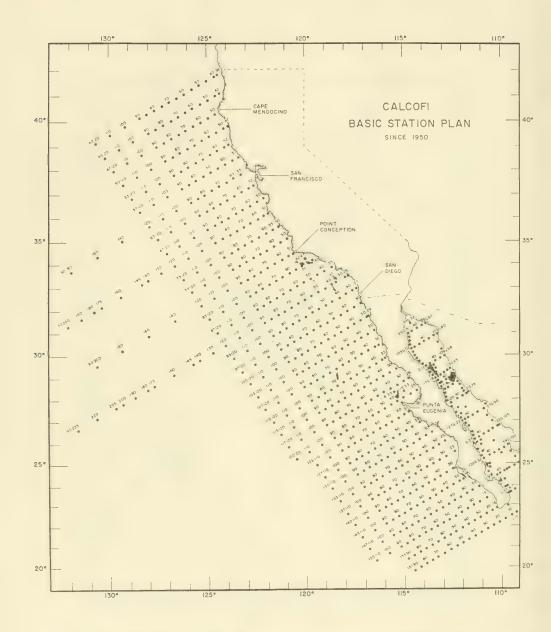


Figure 14. The basic station plan for CalCOFI cruises from 1950 to the present.

Station and plankton tow data for CalCOFI cruises in 1959. Counts for fish eggs and larvae are not adjusted for standard haul factor or percent of sample sorted. TABLE 1.

## CalCOFI Cruise 5901

Total	25 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 0
Total Larvae		10
Percent Sorted		
Stand- ard Haul Factor	00000000000000000000000000000000000000	
Vol. Water Strained (cu. m)	.	909
Tow Depth		138
Time (PST)		1215
Tow Date yr. mo. day	00000000000000000000000000000000000000	01
Ship		BD
Long.(W) deg. min.	123 101 123 123 101 101 101 101 101 101 101 101 101 10	48.
Lat.(N) deg. min.	23333333333333333333333333333333333333	34.
Station	25	0.06
Line	00000000000000000000000000000000000000	83.0

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Total Eggs	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total Larvae	274 1070 1070 1070 3399 344 444 111 116 117 117 118 118 119 119 119 119 119 119 119 119
Percent Sorted	
Stand- ard Haul Factor	&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&
Vol. Water Strained (cu. m)	44744444444444444444444444444444444444
Tow Depth	1445 1441 1441 1441 1441 1441 1441 1441
Time (PST)	23351 003351 003361 003361 003361 00361 0048
Tow Date yr. mo. day	559 011 25 559 010 25 559 010 26 559 010 26 559 010 26 559 010 27 559 010 11 559 010 11 550 010 010 010 010 010 010 010 010 010
Ship	999999999999999999999999999999999999999
Long.(W) deg. min.	11188 33 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Lat.(N) deg. min.	33 50.0 33 2 50.0 35 2 50.0 36 2 50.0 37 2 50.0 38 3 3 3 5 5 6 0 38 3 3 5 6 0 38 3 5 6 0 38 3 5 6 0 38 3 6 0 38 3 7 6
Station	K4000000000000000000000000000000000000
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	Total Eggs	1130 1130 1130 1130 1130 1130 1130 1130	
	Total Larvae	113 123 133 144 153 153 153 153 153 153 153 153 153 153	
	Percent Sorted		
	Stand- ard Haul Factor	202010202020202020202020202020202020202	
	Vol. Water Strained (cu. m)	0.000 0.000	
1066	Tow Depth	134402 134402 134402 134402 134403 13440 134403 134	
calcori ciuise o	Time (PST)		
	Tow Date yr. mo. day	\$559 000 000 000 000 000 000 000 000 000	
	Ship	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
	Long. (W) deg. min.	1111   11   12   12   13   14   15   15   15   15   15   15   15	
	Lat.(N) deg. min.	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
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Total Larvae	108	11.	56	19	14	117	4	291 48	35	51	21	9	7	20	78	11	12		3	237	36	77	ı m	12	893	ى ى	24	12	26	500	16
Percent Sorted	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Stand- ard Haul Factor	2.26	2.77	2.82	2.58	2.52	1.87	1.69	2.31	2.33	2.66	2.48	2.56	2.73	2.83	2.12	2.37	2.49	2.75	2.61	3.15	2.32	2.63 2.58	2.91	2.74	2.48	2.66	2.76	2.47	1.87	2.10	2.37
Vol. Water Strained (cu. m)	358 504 511	525	514	522	539 539	595 361	305	315	141	517	519	510	494	492	297	562	0 to 2 4 to	508	516	473	547	522	491	516	787	516 555	512	547	614	306	534
Tow Depth	81 132 140	145	145	134	136	111	52	73	33	137	129	130	135	139	63	133	135	140	134	149	127	13/	143	144	1/1	137	141	135	115	64	127
Time (PST)	1957 1746 0546	0251	2051	1341	0416	0756	0218	0428	2004	2246	0356	0651	1101	1941	0403	0051	1011	0626	0126	0200	0421	1201	1626	2046	8117	1826	1306	1101	0816	0128	0401
Tow Date yr. mo. day	59 01 10 59 01 10 59 01 10	0 6 0 1 0 6	0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 01	9 01	9 01	9 01	9 01	0 0 0	9 01	0 6	10 6	0 0 0	9 01	9 01	000	0 01	0 0 0	0 0 0 0 1	9 01	10 6	9 01	9 01	0 0	000	9 01	9 01	9 01	0 0 0	9 01
Ship	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SB	SBS	SB	SB	SB	SB	SB
Long.(W) deg. min.	114 55.7	5 55.	6 35.	7 33.	8 53.	5 23.	4 15.	4 34.	5 13.	533.	5 53. 6 14.	6 34.	7 14.	8 27.	4 40.	59.	6 14.	6 51.	7 26.	4 30.	4 51.	5 A6	6 26.	7 02.	3 29.	3 54.	4 30.	4 46.	5 06.	2 47	3 09.
Lat.(N) deg. min.	28 48.2 28 38.0 28 27.5	888	170	17	6 4		121	88	7 5	7 1	- L	7 1	ים מו	200	7 2	7	) E	20	in i	0 0	9	9 0	5 4	5 2	9 1	9	מנ	5	201	7 U	o Ro
Station	30.0	45.0	55.0	70.0	0.06	33.0	25.0	30.0	40.0	45.0	55.0	0.09	70.0	0.06	37.0	42.0	60.0	70.0	80.0	40.0	45.0	20.0	70.0	80.0	30.0	35.0	45.0	50.0	55.0	25.0	30.0
Line	117.0	117.0	117.0	117.0	117.0	118.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	123.0	123.0	123.0	123.0	123.0	127.0	127.0	127.0	127.0	127.0	130.0	130.0	130.0	130.0	130.0	133.0	133.0

	Total	2 2 2 4 4 2 4
CalCOFI Cruise 5901	Total Lárvae	1112001 1 111200 4 0001 1 2 0000 1 1 1 1 1 1 1 1 1 1 1 1 1
	Percent	
	Stand- ard Haul Factor	02222122222222222222222222222222222222
	Vol. Water Strained (cu. m)	00000000000000000000000000000000000000
	Tow Depth	746 1124 1124 1124 1124 1125 1125 1125 123 123 123 123 123 123 123 123 123 123
	Time (PST)	00621 11016 11016 11016 11016 00746 00843 00843 00843 00843 00843 00931 11011 11011 11011 00111 00111 00111 00111 00111
	Tow Date yr. mo. day	\$2555555555555555555555555555555555555
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Total Eggs	111 149484 149484 149484 149484 15549 16608 17072	48
Total T	496 465 137 137 137 137 137 137 137 121 121 121 121 121 121 121 12	
Percent 1 Sorted I		100.0
Stand- ard Haul Factor S		3.03
Vol. Water Strained	44444444444444444444444444444444444444	468
Tow Depth (m)	100 100 100 100 100 100 100 100 100 100	142
Time (PST)	11551 11341 11341 11341 11341 1152 1009 1000 1000 1130 1130 1130 1130 1130	0011
Tow Date yr. mo. day	\$559 02 27 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	02
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Long.(W) deg. min.	1211 20 20 20 20 20 20 20 20 20 20 20 20 20	58.
Lat.(N) deg. min.	33333332333333333333333333333333333333	22.
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Total Eggs	16	22 20 20 72	215 24 45 19	10 31 10	0707	162	273 98 14 14	160 8 7 E	15 74 111 65	15 42 138 333 29 4709 1854
Total Larvae	40000	23	169 107 6 11	2000	18 1 0 3	27	21 0 3 3 2 3	7 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	29	33 6 33 23 23 25
Percent Sorted										1000.00
Stand- ard Haul Factor	2.85 2.94 2.27 2.79	22.72	7.85 2.94 2.93 2.69	2.51 2.71 2.51	2.62 2.42 2.65 2.52	22.33	2.28 2.28 2.13 2.65	22.50 22.50 24.62 64.63	2.40 2.888 2.31 2.60	2.055 2.055 2.055 2.055 2.055
Vol. Water Strained (cu. m)	496 480 582 505	515 565 475	497 474 546 515	169 521 551	534 532 545	537 592 551	546 599 608 619 496	563 570 430 567 541	576 243 550 552	552 546 562 603 456
Tow Depth	141 132 141	140	140 139 138	141 138	140 135 141 137	142	127 137 132 132	141 131 141 142	138 70 127 143	136 139 139 139 129
Time (PST)	1901 1336 0816 1226	1826 2146 0026	0341 0641 1006 2116	0236 0236 0036	2126 1836 1536 1256	0356 0356 2236 1646	1826 1926 2226 0116	0706 1056 2356 0526	1026 1158 0916 0636	0356 0056 22216 1916 1316 1446
Tow Date yr. mo. day	002220022	0022	22222	0221	00000	02 1 20 0 2 1 0 0 2 1 0 0 0 2 1 0 0 0 0	022	002000	002000	59 02 10 59 02 10 59 02 09 59 02 09 59 02 09 59 02 07
Ship	88888	8000	*8888	FILE		T E E E		ta ta		
Long.(W) deg. min.	36. 18. 58. 22.	52. 12.	35.	09. 14. 28.	30.00.00.00.00.00.00.00.00.00.00.00.00.0	32.	43. 07. 27.	225 328 27 33	40 45 02	117 44.5 117 44.5 118 04.8 119 11.1 116 11.7
Lat.(N) deg. min.	00. 44. 25.	39.	02. 57.	15.	24.	36.	42. 31. 22. 13.	588. 50. 24.	55. 44. 55.	30 26.5 30 26.5 30 07.2 29 55.9 30 25.8
Station	00000	0000	0000	2500	00000	0000	0000	00000	00000	455.0 55.0 70.0 32.0 35.0
Line	000000	0000	00000	97.0	97.0	97.0	00000	100000	100000000000000000000000000000000000000	103.0 103.0 103.0 107.0

	Total	22 22 22 22 22 22 22 22 22 22 22 22 22
	Total Larvae	2 4 4 8 8 4 8 8 4 8 8 8 8 8 8 8 8 8 8 8
	Percent	
	Stand- ard Haul Factor	244044010000018L04L0100000000000000000000
	Vol. Water Strained (cu. m)	0.000000000000000000000000000000000000
5902	Tow Depth	1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Time (PST)	1736 1736 1736 1737 1737 1737 1737 1737
CalCOFI Cruise	Tow Date yr. mo. day	\$559 00 00 00 00 00 00 00 00 00 00 00 00 00
	Ship Code	
	Long.(W) deg. min.	1116 4 2 3 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Lat.(N) deg. min.	22222222222222222222222222222222222222
	Station	44000mw440000C80ww440000CVww440000CwwCww440000 0.000mv0.00000000000000000000000000
	Line	1007.00 1007.0

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1	Cruise
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	Total Eggs	20 10	24	42	71	55	22	512	61	26	19	55	313	127	19	20	101	17	190	40	62	22	134	15	604	404	28	20
	Total	9 77 9	اصا	31	<b>о</b> п	ט יט	2 5	9	110	29	13	13	224	26	0	4	11	119	34	7	13	20 م	5	825	226	10	33	7
	Percent Sorted	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Stand- ard		2.90	2.68	2.38	3.02	2.97	3.10	2.87	2.94	2.72	3.00	2.97	2.21	2.90	2.85	3.05	3.02	2.74	2.69	2.59	2.63	3.09	3.17	2.76	2.67	3.10	2.94	3.08
Vol. Water	Strained (cu. m)	475	513	255	465	446	456	226	478	516	469	475	259	4/8	488	465	458	270	485	498	497	482	429	231	497	4/4	480	446
	Depth (m)	139	138	138	140	138	142	65	140	138	141	141	57	138	139	142	138	138	130	129	131	142	136	64	133	139	141	138
	Time (PST)	0356	1611	2118	1846	1341	1011	1323	1616	2235	9500	0336	0053	3056	1646	1406	1116	0831	0826	2146	0026	0336	1936	0208	2241	1651	1416	1136
	Tow Date yr. mo. day	59 02 18 59 02 18	02	02	02	02	02	02	02	020	02	02	02	20	02	02	02	020	020	0.5	02	020	02	0.5	02	200	02	0.5
	Ship	BD BD	BD	BD	BD	BD	BD	BD	BD	BD CR	BD	BD RD	BD	BD														
	Long.(W) deg. min.	116 51.0																										
	Lat.(N) deg. min.	27 04.5																										
	Station	65.0	0.06	37.0	42.0	45.0	55.0	34.0	40.0	45.0	55.0	0.09	30.0	35.0	45.0	50.0	55.0	0.09	30.0	35.0	40.0	45.0	36.0	23.0	30.0	35.0	45.0	50.0
	Line	120.0	120.0	123.0	123.0	123.0	123.0	123.0	127.0	127.0	127.0	127.0	130.0	130.0	130.0	130.0	130.0	130.0	133.0	133.0	133.0	133.0	134.0	137.0	137.0	137.0	137.0	137.0

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Total Eggs	73.25 1.05	
Total Laryae	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Percent Sorted		
Stand- ard Haul Factor	0444627447504764675467546754676467646764676467646764	
Vol. Water Strained (cu. m)	1.0440000000000000000000000000000000000	
Tow Depth	1100	
Time (PST)	10000000000000000000000000000000000000	
Tow Date yr. mo. day	\$599 03 22	
Ship Code		
Long.(W)	1119 1119 1119 1119 1119 1119 1119 111	
Lat.(N) deg. min.	330 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Station	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Line	8833.0 887.0 887.0 990.0 900.0	

	Total	78
	Total Larvae	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Percent Sorted	
	Stand- ard Haul Factor	04400000000000000000000000000000000000
	Vol. Water Strained	40000000000000000000000000000000000000
5903	Tow Depth	11323 11323 11323 11323 11323 11323 11323 11323 11323 11323 11323 1133
Cruise	Time (PST)	00000000000000000000000000000000000000
CalCOFI Cri	Tow Date yr. mo. day	\$250 00 00 00 00 00 00 00 00 00 00 00 00 0
	Ship	A PARTITITITITITITITITITITITITITITITITITITI
	Long.(W) deg. min.	1116 43 1117 4 48 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Lat.(N) deg. min.	22222222222222222222222222222222222222
	Station	0.000000000000000000000000000000000000
	Line	10000000000000000000000000000000000000

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Total	sppa s	133	43	422	1772	272	11	21	69	44	70	45	339	39/	166	953	19	41	44 20	99	23	17	1632	21	142	24	25	253	217	795	41
Total	Larvae	18/	27	181	53	161	19	47	16	5	14	11	35	11	15	25	100	26	22	0 00	22	178	18	24	24	7	45	154	09	41	1038
Percent	sorted	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Stand- ard Haul		2.78																													
Vol. Water Strained	(cn·m)	507	498	300	164	215	117	505	463	498	497	464	208	480	446	476	238	466	478	457	461	474	489	460	472	252	472	491	474	406	205
Tow	(H)	142	140	142	41	70	28	141	140	141	140	142	56	142	145	142	141	140	140	143	141	140	139	140	142	70	141	137	140	120	99
Time		0700	2315	1808	1334	2018	2238	0515	1100	1306	1536	0206	0758	0530	0000	2106	1238	1551	1836	9000	0300	2201	1956	1356	1115	0608	0920	1645	2216	1516	2220
Tow Date	yr. mo. day	59 03 16 59 03 16 59 03 16	030	03	03	03	03	000	03	03	03	03	03	0 0	03	03	030	03	03	03	03	03	03	03	03	03	03	03	03	03	03
Ship		888	ORO	O CK	OR	8 8 8 8	OR	ORO	S 8	OR	OR	ORO	OR	OR	OR	OR OR	S S	OR	OR	88	OR	OR	OR	ORO	OR	ORO	OR	OR	OR	O.K.	OR
Long. (W)	deg. min.	116 53.5	12.	53.	15.	54.	14.	52.	30.	51.	10.	27.	40.	00	30.	50.	06.	29.	48.	27.	47.	48.	06.	45.	02.	45.	07.	26.	04.	25.	18.
Lat.(N)	deg. min.	27 47.7 27 42.5 27 31 5	7 08.	8 19.	8 23.	8 03.	7 56.	7 32.	7 11.	7 00.	6 49.	6 13.	7 24.	7 14.	6 58.	6 48.	6 55.	6 43.	6 32.	6 13.	6 03.	6 18.	6 07.	5 48.	5 39.	6 03.	5 55.	5 44.	5 24.	5 35.	5 33.
	Station	65.0	80.0	33.0	25.0	35.0	40.0	50.0	0.09	65.0	70.0	0.06	37.0	42.0	50.0	55.0	34.0	40.0	45.0	55.0	0.09	35.0	40.0	50.0	55.0	25.0	30.0	35.0	45.0	36.0	23.0
	Line	117.0	117.0	119.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	123.0	123.0	123.0	123.0	127.0	127.0	127.0	127.0	127.0	130.0	130.0	130.0	130.0	133.0	133.0	133.0	133.0	134.0	137.0

	Total Eggs	224 866 634 44 103
	Total Larvae	217 32 11 42 24
	Percent Sorted	1000.001100.001100.0011000.001000.0011000.0011000.0011000.0011000.0011000.0011000.0011000.00110000.0011000.0011000.0011000.0011000.0011000.0011000.00110000.0010000.00110000.001000.0010000.0010000.00000.00000.00000.00000.000000
	Stand- ard Haul Factor	2.95 2.93 2.91 2.97 2.93
	Vol. Water Strained (cu. m)	472 480 497 471 484
5903	Tow Depth 9	139 141 144 140
Cruise	Time (PST)	1815 1526 1156 0821 0606
CalCOFI Cru	Tow Date yr. mo. day	59 03 23 59 03 23 59 03 23 59 03 23 59 03 23
	Ship	888888
	Long.(W) deg. min.	112 46.0 113 05.3 113 25.2 113 43.2 114 00.0
	Lat.(N) deg. min.	25 19.5 25 09.0 24 58.0 24 49.0 24 40.3
	Station	30.0 35.0 40.0 50.0
	Line	137.0 137.0 137.0 137.0

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Total	3320 3220 3220 3220 3220 320 320 330 330
Total Larvae	25 26 26 11 12 13 13 14 15 15 16 17 17 17 17 18 19 10 10 10 10 10 10 10 10 10 10
Percent Sorted	
Stand- ard Haul Factor	28228228222222222222222222222222222222
Vol. Water Strained (cu. m)	######################################
Tow Depth	133 133 133 133 133 133 133 133 133 134 134
Time (PST)	00000000000000000000000000000000000000
Tow Date	222223334
Ship	\$35.55.55.55.55.55.55.55.55.55.55.55.55.5
Long.(W) deg. min.	122
Lat.(N) deq. min.	33333333333333333333333333333333333333
Station	0.000000000000000000000000000000000000
Line	600 600 600 600 600 600 600 600 600 600

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Total	1009 246 546 546 546 546 546 546 546 5
Total Larvae	1484 1484 1484 1584 1684 1684 1684 1684 1684 1684 1684 16
Percent Sorted	
Stand- ard Haul Factor	88792017388888888800173880801798808017988080179880801798808017988080179880801798808017988080179880801798808017988080179880801798808017980801798080179808017980801798080179808017980801798080179808017980801798080179808017980
Vol. Water Strained (cu. m)	4 W D A W A A A A A A A A A A A A A A A A
Tow Depth	11111111111111111111111111111111111111
Time (PST)	0751 19301 19301 19301 19301 19301 1936 1935 1936 1936 1936 1936 1936 1936 1936 1936
Tow Date yr. mo. day	\$25250000000000000000000000000000000000
Ship Code	888888888888888888888888888888888888888
Long.(W) deg. min.	119 34 120 07.5 120 07.5 121 05.5 122 09.0 122 09.0 122 09.0 122 09.0 123 09.0 124 07.5 125 09.0 126 09.0 127 09.0 128 39.5 129 09.5 120 09.0 121 132 09.0 121 132 09.0 122 08.0 123 13.3 124 09.0 125 09.0 127 09.0 128 13.3 129 13.5 120 13.5 120 13.5 120 13.5
Lat.(N) deg. min.	333 340 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Station	4 K K K K K K K K K K K K K K K K K K K
Line	0.000000000000000000000000000000000000

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Total	753 65 143 112 30	112 27 62 597 46	164 72 137 23 61 61	79 67 67 37 85	71 119 120 120 70 70	758 466 69 37 31	647 2020 2020 4020 4020 4020 4020 4020 40
Total Larvae	26 5 12 143	1039 260 66 21 21	28 0 4 V A	207400	10 19 15 15	50 431 69 12 10	31 10 14 25 138 134 490 23
Percent Sorted	100.0 100.0 100.0 100.0	100000	100000	100000000000000000000000000000000000000	1000.0000000000000000000000000000000000	100000000000000000000000000000000000000	1000
Stand- ard Haul Factor							22.64 22.866 22.30 22.78 22.78 22.78
Vol. Water Strained	44444490000000000000000000000000000000	502 5087 4495 695	250 250 269 289 289	513 506 504 516	4993 506 505 605 605 605	290 290 498 498 486	500 4 4 5 5 1 8 6 5 1 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Tow Depth	141 142 140 140 141	1443	142 143 143 143 145	138 140 138 141	1441 1441 1440 200	140 140	137 140 133 135 127 129 129
Time (PST)	0346 0636 0946 1026 0741 0526	0140 2306 1601 1216 0816	0426 0126 2156 1906 2138	0206 0536 0826 1206	1826 2116 0036 0341 0716	1308 0313 0641 1021 1316 1656	2316 0246 0621 0916 1226 1516 1835 1411 1221
Tow Date Yr. mo. day	000000	44444	44444	00000	0000000	0000000	559 04 08 559 04 09 559 04 09 559 04 09 559 04 09 559 04 11 559 04 11
Ship	OR OPT	OR OR OR	888888	888888	000000000000000000000000000000000000000	PT P	PT PT PT PT PT
Long.(W) deg. min.	54. 34. 16. 29.	05. 27. 09. 31. 54.	32. 51. 69.	27. 47. 07.	27. 27. 27. 30.	46. 25. 45. 05. 21. 41.	1118 23.1 1118 43.0 1119 24.0 1119 24.0 1120 23.3 120 23.3 116 69.7 116 20.5
Lat.(N) deg. min.	11. 01. 52. 11.	35. 16. 16. 16.	36. 26. 16.	30. 21. 10. 51.	200. 200. 100.	40. 04. 55. 45. 34. 25.	30 07.0 29 56.5 29 56.5 29 35.0 29 24.7 29 16.8 30 26.2 30 18.0
Station	80.0 90.0 332.0 40.0	00000	000000	200000	60.0 65.0 70.0 75.0 85.0	0000000	660.0 655.0 775.0 775.0 885.0 885.0 885.0 885.0 40.0 40.0
Line	93.0 93.0 97.0	97.0 97.0 97.0	97.0 97.0 97.0 100.0	100000000000000000000000000000000000000	1000.00	103.0	103.0 103.0 103.0 103.0 103.0 103.0 107.0

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Total Eggs	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total Larvae	32 32 33 34 36 37 31 31 31 31 31 31 31 31 31 31
Percent Sorted	
Stand- ard Haul Factor	22222222222222222222222222222222222222
Vol. Water Strained (cu. m)	\$250.000.000.000.000.000.000.000.000.000.
Tow Depth	111229 11224 113327 113327 11327 113327 113327 113327 113327 113327 113327 113327 113327 113327
Time (PST)	0451 0451 0451 0626 0626 0626 0626 0626 0631 0631 0631 0631 0631 0631 0631 063
Tow Date yr. mo. day	7.7.7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
Ship 7 Code yı	
Long.(W) deg. min.	1117 23.3 1117 23.3 1118 42.1 1118 42.1 1118 42.1 1119 110.1 1119 110.1 1110 110.1 110.1 110.1 110.1 110.1 110.1 110.1 110.1 110.1 110.1 110.1
Lat.(N) deg. min.	
Station	40000000000000000000000000000000000000
Line	0.0000000000000000000000000000000000000

Total Eggs	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total Larvae	118 120 120 120 120 130 130 130 130 130 130 130 130 130 13
Percent Sorted	
Stand- ard Haul Factor	$\begin{array}{c} UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU$
Vol. Water Strained (cu. m)	\$250 000 000 000 000 000 000 000 000 000
Tow Depth	0.000 0.000
Time (PST)	10000000000000000000000000000000000000
Tow Date yr. mo. day	\$2599 004 111    \$2599 004 112    \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1     \$2599 004 1
Ship	
Long.(W) deg. min.	1118 8 081 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Lat.(N) deg. min.	222 222 22 22 22 22 22 22 22 22 22 22 2
Station	0.000000000000000000000000000000000000
Line	111177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0 11177.0

CalCOFI Cruise 5904

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Total		2	2	4									4							
Total Larvae	42	21	33 46	62	12	6	99	25	55	12	87	18	50	4	7	18	105	38	1.2	40
Percent Sorted	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Stand- ard Haul Factor		2.63	2.74	2.91	2.85		2.80			0	0	3.21	3.54	3.03	2.95	2.91	2.84	2.86	3.03	2.88
Vol. Water Strained (cu. m)	497	512	505 514	474	488	236	501	529	514	489	45/	292	429	465	484	480	480	498	463	485
Tow Depth	138	135	138	138	139	99	139	136	134	141	125	199	152	141	143	140	136	142	140	140
Time (PST)	2226	2346	2106 1826	1536	0901	1943	2156	0341	1090	0916	1146	2132	1911	1411	1016	9020	0356	0121	2226	1926
Tow Date yr. mo. day			59 04 13 59 04 13		0.4	04		0.4	04	0 4	0.4	04	04	04	04	04	04	04	04	04
Ship Code	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST	ST
Long.(W) deg. min.	115 55.0		112 56.0		_	48		39	56.	14.	38,	03.	20.	42.	00.	18.	34.	55.	14.	
Lat.(N) deg. min.	23 40.0	24 35.5	24 27.0	24 05.5	23 45.0	24 19.0	23 58.5	23 47.5	23 38.5	23 29.5	23 17.0	23 56.0	23 51.5	23 34.0	23 24.5	23 14.5	23 06.0	22 55.0	22 44.5	22 34.0
Station	80.0	35.0	40.0	50.0	0.09	26.0	30.0	40.0	45.0	50.0	55.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	0.09
Line	137.0	140.0	140.0	140.0	140.0	143.0	143.0	143.0	143.0	143.0	143.0	147.0	147.0	147.0	147.0	147.0	147.0	147.0	147.0	147.0

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Total Eggs	11 20 20 20 20 20 20 20 20 20 20
Total Larvae	18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Percent Sorted	1000 1000 1000 1000 1000 1000 1000 100
Stand- ard Haul Factor	VEURUNUS 2000 000 000 000 000 000 000 000 000 0
Vol. Water Strained (cu. m)	00000000000000000000000000000000000000
Tow Depth	64 100 100 100 100 100 100 100 10
Time (PST)	0418 002338 002338 114456 114526 114526 114526 114526 114526 114526 114526 115
Tow Date yr. mo. day	559 9 05 114 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Ship	
Long.(W) deg. min.	123 02 0 123 15 0 123 15 0 124 16 0 125 2 25 0 125 3 2 0 125 1 2 0 125
Lat.(N) deg. min.	337 4 53 337 4 53 337 4 53 337 4 53 338 6 72 338 6 72 339 6 72 339 6 72 330 6 72 330 6 72 330 6 72 331 7 7 8 332 7 7 8 332 7 7 8 333 7 7 8 334 7 7 8 335 7 8 337 7 8 338 8 8 338 8 8 8 348 8 8 8 358 8 8 8 368 8 8 8 378 8 8 8 388 8 8 8 388 8 8 8 388 8 8 8 8 388 8 8 8 8 388 8 8 8 8 388 8 8 8 8 8 8 388 8 8 8 8 8 8 388 8 8 8 8 8 8 8 388 8 8 8 8 8 8 8 8 388 8 8 8 8 8 8 8 8 388 8 8 8 8 8 8 8 8 8 8 8 388 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Station	746000000000000000000000000000000000000
Line	600 600 600 600 600 600 600 600 600 600

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Total	198000000000000000000000000000000000000
Total Larvae	36 1006 1006 1006 1006 1006 1006 1006 10
Percent Sorted	
Stand- ard Haul Factor	8444       8644
Vol. Water Strained (cu. m)	44444474444444444444444444444444444444
Tow Depth	11111111111111111111111111111111111111
Time (PST)	22222222222222222222222222222222222222
Tow Date yr. mo. day	\$559 05 114    \$559 05 114    \$559 05 114    \$559 05 113    \$559 05 1     \$559 05 1
Ship	
Long.(W) deg. min.	1222 57. 1223 188.0 1229 188.0 1221 188.0 1221 188.0 1222 188.0 12
Lat.(N) deg. min.	33 2 2 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Station	880 110 110 110 110 110 110 110
Line	77777 00000000000000000000000000000000
	Vol. Stand- Tow Water ard and Fig. (N) Long.(W) Ship Tow Date Time Depth Strained Haul Percent Total Station deg. min. Gode yr. mo. day (PST) (m) (cu. m) Factor Sorted Larvae

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	Total Eggs	11 14 12 2 2 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Total Larvae	6 9 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
	Percent Sorted		
	Stand- ard Haul Factor	2.00 2.00	
	Vol. Water Strained (cu. m)	8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
000	Tow Depth (m)	220014011111111111111111111111111111111	
pern	Time (PST)	1336 10000000000000000000000000000000000	
CAICOLL CI	Tow Date yr. mo. day	\$559 05 05 113 3 15 25 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
	Ship	%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%	
	Long.(W) deg. min.	119 16.6 119 37.0 110 37.0 1120 38.5 1120 38.5 1120 38.5 1121 39.0 1121 39.0 1122 40.0 1123 40.0 1124 40.0 1125 40.0 1127 40.0 1127 40.0 1128 33.0 1120 35.0 1120 35.0 1121 35.0 1121 35.0 1121 35.0 1121 37.0 1121 37.0 121 37.0 12	
	Lat.(N) deg. min.	332 34 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
	Station	550 550 550 550 550 550 550 550	
	ine	000000000000000000000000000000000000000	

Total Eggs

Total	Larvae	55	61	33	27	14	37	17	30	17	84	231	49	430	32	10	2.4	06	114	84	128	29	69	50	64	2/2	29	37	17	62	40	52	38	18	ΩI
Percent	Sorted	100.0																																	
tand ard Haul	Factor	3.29	0.	٣٠	: .	0.	0.	. 6.	۳.	- 8	8	۲.	٦.	,0	, &	0,0	, 0	9	9.	0	8	٠.4	.0	8	9.	.0	6.	6.	٦, ٧	.7	.7	٠.	.0	6.	6
Vol. Water Strain	(cn	446	463	490	493	466	509	490	448	228 488	490	465	462	462	491	475	407	472	475	451	486	529	458	494	476	457	477	479	465	497	492	460	474	472	481
5905 Tow Depth	(m)	147	142	141	133	143	144	145	148	139	142	145	143	137	137	140	141	140	141	140	138	129	139	141	141	144	140	142	146	136	134	145	140	140	139
Q i	(PST)	0756	0816	0526	1421	1146	0811	0236	2256	2131	0011	0256	0541	1256	1626	1921	0022	0356	0641	2156	1941	1646	1026	0726	0311	2111	1821	1521	1146	1736	2041	2326	0456	0811	1100
CalCOFI C	yr. mo. day	59 05 15 59 05 15	9 05 2	9 05 2	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	0 05 1	9 05 1	9 05 1	00 0	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	000	9 05 1	9 05 1	9 05 1	9 05 1	9 05 1	9 05 2	9 05 2	9 05 2	9 05 2
Ship	Code	OR	OR	O C	OR O	OR	OR	S S	OR	O CK	OR	OR	OR C	ŠÖ	OR	OR	5 6	OR O	OR	S C	OR	OR	O C	OR	OR	S C	OR	OR	OR	S S	OR	OR	O C	OR	OR
Long. (W)		117 25.7	7 07.	27.	9 07.	9 29.	9 48.	0 28.	0 47.	6 25.	7 05.	7 25.	7 45.	25.00	8 45.	9 05.	46.0	0 06.	0 26.	6 22.	6 32.	57.	7 42.	8 00.	8 22.	9 01	9 20.	9 39.	0 03.	00.	6 19.	6 40.	7 19.	7 39.	7 58.
Lat		31 21.5	00	50.	28.	21.	11.	50.	40.	55.	45.	35.	26.	10.	56.	43.	0.4°	15.	05.	20.	10.	00.	39.	31.	21.	01	51.	42.	30.	46.	36.	26.	05.	55.	45.
)	Station	40.0	50.0	55.0	65.0	70.0	75.0	85.0	0.06	30.0	40.0	45.0	50.0	0.09	65.0	70.0	0.00	85.0	90.0	35.0	40.0	45.0	55.0	0.09	65.0	75.0	80.0	85.0	0.06	35.0	40.0	45.0	55.0	60.09	65.0
470	Line	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	103.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	110.0	110.0	110.0	110.0	110.0	110.0

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Total	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	493
Total	22 231 338 667 112 112 112 112 123 123 140 123 123 123 123 123 123 123 123 123 123	510
Percent Sorted		
Stand- ard Haul Factor	6000000000000000000000000000000000000	
Vol. Water Strained	44444004044444444444444444444444444444	497
Tow Depth	11144 1114 1114 1114 1114 1114 114 114 114 114 114 114 114 114 114 114 1	137
Time (PST)		0841
Tow Date yr. mo. day	000000000000000000000000000000000000000	050
Ship	\$	PT
Long.(W) deg. min.	11111111111111111111111111111111111111	7 48.
Lat.(N) deg. min.	222 22 22 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	6 46.
Station	CV8880WW44RW00CV8880VWW44RW00CVC8880WWWW44RWW44RW00CCCCCCCCCCCCCCCCCCCCCCCC	70.0
Line		120.0

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Total Eggs	2020 3100 4004 4004 4004 1004	331 59
rotal Larvae	174 3176 3	325
Percent Sorted		100.0
Stand- ard Haul Factor	80001000088800000000000000000000000000	3.37
Vol. Water Strained	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	441
Tow Depth	1458 1458 1453 1453 1453 1453 1453 1454 1454 1454	149
Time (PST)		1927
Tow Date yr. mo. day	\$250 000 000 000 000 000 000 000 000 000	0.5
Ship Code		PT
Long.(W) deg. min.	1111 1111 1111 1111 1111 1111 1111 1111 1111	4 000.
Lat.(N) deg. min.	225 246 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 4
Station	80W44NN00CW44NN00CWW44NN00CWW44NWW4 00CKNONO4ONO4ONONOSONONONONONONONONONONONONO	45.U 50.0
Line	00000000000000000000000000000000000000	137.0

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Total Eggs	100 100 100 100 100 100 100 100 100 100	251
Total Larvae	100 883 883 883 883 883 883 883 883 883 8	181
Percent Sorted		
Stand- ard Haul Factor	00000000000000000000000000000000000000	2.96
Vol. Water Strained	4444600000444604604604604604604604604604	446
Tow Depth	1120 1230 1231 1231 1232 1233 1233 1233	132
Time (PST)	1008346 1008346 1008346 1008315 1008315 1008346 1008346 1008346 1008346 1008346 1008346 10083	0210
Tow Date yr. mo. day	\$559 06 10 10 10 10 10 10 10 10 10 10 10 10 10	90
Ship Code		E C
Long.(W) deg. min.	1220 1221 1221 1222 1222 1222 1222 1222	56.
Lat.(N) deg. min.	33333333333333333333333333333333333333	54.
Station	0.000000000000000000000000000000000000	45.0
Line	77777777777777777777777777777777777777	

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Total	182 133 134 145 177 177 177 177 186 197 197 197 197 197 197 197 197 197 197
Total Larvae	234 666 667 720 720 720 720 720 720 720 720 720 72
Percent Sorted	
Stand- ard Haul Factor	33332222332222233322222332222222222222
Vol. Water Strained	44044460000000000000000000000000000000
Tow Depth	126 133 133 133 133 133 133 133 133 133 13
Time (PST)	23 10 10 10 10 10 10 10 10 10 10
Tow Date yr. mo. day	\$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 18   \$59 06 15   \$59 06 15   \$59 06 15   \$50 06 16   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 10   \$50 06 1   \$50 06 10   \$50 06 1
Ship	
Long.(W) deg. min.	1119 16 17 17 18 18 18 19 19 16 19 19 19 19 19 19 19 19 19 19 19 19 19
Lat.(N) deg. min.	332 44.7 332 16.7 331 55.0 332 10.0 333 20.0 333 20.0 334 20.0 335 20.0 337 20.0 338 20.0 348 20.0 358 20.0 368 20.0 378 20
Station	0.000 0.000
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Total Eggs	22124 4277 4277 4277 4277 4277 4277 4277	
Total Larvae	256 1122 1122 1132 1132 1132 1133 1133 113	
Percent Sorted		
Stand- ard Haul Factor	20001122222222222222222222222222222222	
Vol. Water Strained	44440404444444444444444444444444444444	
Tow Depth (m)	11443 1253 1374 1383 1333 1333 1333 1333 1333 1333 133	
Time (PST)	00000000000000000000000000000000000000	
Tow Date yr. mo. day	\$250.000	
Ship Code		
Long.(W) deg. min.	11111111111111111111111111111111111111	
Lat.(N) deg. min.	222 223 230 25 25 25 25 25 25 25 25 25 25 25 25 25	
Station	C889WW44RR000FF889WW44RR0R0FFF889WW44RR0R0FFF899WW	
Line	00000000000000000000000000000000000000	

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	Total	1000 1000 1000 1000 1000 1000 1000 100
	Total Larvae	444030 44400 44400 44400 44400 44400 44400 44400 44400 44400
	Percent Sorted	000000000000000000000000000000000000000
	Stand- ard Haul Factor	22222222222222222222222222222222222222
	Vol. Water Strained	00000000000000000000000000000000000000
	Tow Depth	1144 1144 1144 1144 1144 1144 1144 114
Dern	Time (PST)	001111
carcor or	Tow Date yr. mo. day	\$2599 06 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Ship	888888888888888888888888888888888888888
	Long.(W) deg. min.	111166 5 3 2 2 3 3 3 3 4 5 2 5 3 3 3 4 5 3 5 3 5 3 5 3 5 3 5 3 5 3 5
	Lat.(N) deg. min.	28 9 02 02 02 02 02 02 02 02 02 02 02 02 02
	Station	0.000000000000000000000000000000000000
	Line	7.00.00.00.00.00.00.00.00.00.00.00.00.00

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	Total	266 1266 1266 1266 1367 1473 1273 1473 1473 1473 1473 1473 1473 1473 14	
	Total Larvae	218, 228, 1111 1311 132 133 203 203 203 103 1135 1135 1135 1135 1137 1137 1137 113	
	Percent Sorted		
	Stand- ard Haul Factor	744889768864608860886777777880000	
	Vol. Water Strained	0.0004440404040404040404040404040404040	
,	Tow Depth	1440 1441 1442 1443 1443 1443 1444 1444 1444	
	Time (PST)	0065 00945 11450 11450 00816 00816 00826 10828 1140 11410 11	
	Tow Date yr. mo. day	559 9 06 06 06 06 06 06 06 06 06 06 06 06 06	
	Ship	888888888888888888888888888888888888888	
	Long.(W) deg. min.	1111 1111 1111 1111 1111 1111 1111 1111 1111	
	Lat.(N) deg. min.	226 446.5 226 446.5 226 206.5 226 206.5 226 206.5 226 244.0 226 244.0 227 244.0 228 244.0 228 34.5 228 34.5 238 34.5 248 36.0 258 36.	
	Station	00000000000000000000000000000000000000	
	Line	1233.0 1223.0 1223.0 1227.0 12	

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Total	22 22 100 24 27 28 8 8 8 8 7 2 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Total Larvae	20 112000 21 124831 21 21211 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Percent Sorted	200000000000000000000000000000000000000
Stand- ard Haul Factor	72m77gm7ggggggggggggggggggggggggggggggg
Vol. Water Strained (cu. m)	
Tow Depth	11111111111111111111111111111111111111
Time (PST)	1636 11231 11331 11331 11331 11331 11331 1144 1154 1164 1164 1164 1164 1164 116
Tow Date yr. mo. day	559 07 26 559 07 26 559 07 25 559 07 25 559 07 22 559 07 22 570 07 22
Ship	888888888888888888888888888888888888888
Long.(W) deg. min.	1225 1 1 1 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3
Lat.(N) deg. min.	338 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Station	20000000000000000000000000000000000000
Line S	550 550 550 550 550 550 550 550

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Total	12244 1113461111111111111111111111111111111	
Total	2 2 4 8 8 4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	
Percent		
ard Haul Factor	EURUGUEUGGUEUGGUEGGGGGGGGGGGGGGGGGGGGGG	
Water Strained (cu. m)	######################################	
Tow Depth	14422 14422 14422 14422 14422 14422 14422 14423 14423 14423 14423 14423 14423 14423 1443 14433 1443 14433 14	
Time (PST)	0357 00556 005161 005161 005161 10516	
Tow Date yr. mo. day	\$59 07 113	
Ship	OOR ROOR ROOR ROOR ROOR ROOR ROOR ROOR	
Long.(W) deg. min.	123 22 4 45 5 0 1 1 2 2 4 4 5 5 0 1 2 2 4 4 5 5 0 1 2 2 4 4 5 5 0 1 2 2 4 4 5 5 0 1 2 2 4 4 5 5 0 1 2 2 4 4 5 0 1 2 2 4 5 0 1 2 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 4 5 0 1 2 5 0	
Lat.(N) deg. min.	939 939 939 939 939 939 939 939 939 939	
Station	00000000000000000000000000000000000000	
Line	77777777777777777777777777777777777777	

CalCOFI Cruise 5907

Total Eggs	1 1 1 2 8 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Total Larvae	274772 11233 11233 1133 11333	
Percent		
Stand- ard Haul Factor	22222222222222222222222222222222222222	
Vol. Water Strained (cu. m)	44404444644444444444444444444444444444	
Tow Depth		
Time (PST)	00421 00421 00421 00501	
Tow Date yr. mo. day	\$5599999999999999999999999999999999999	
Ship Code y		
Long.(W) deg. min.	118 8 22.0 119 8 35.5 4 119 8 52.5 5 1119 8 52.5 5 120 0 0 10.0 121 0 0 0 0 121 0 0 0 0 121 0 0 0 0 121 0 0 0 0 121 0 0 0 0 122 0 0 0 0 123 0 0 0 0 124 0 0 0 0 125 0 0 0 0 126 0 0 0 127 0 0 0 0 128 0 0 0 129 0 0 0 120 0 0	
Lat.(N) deg. min.	33 20 33 20 33 20 33 34 35 35 35 35 35 35 35 35 35 35 35 35 35	
Station	WW440007088808WW44400007088808WW44400	
Line S	11000000000000000000000000000000000000	

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Total Eggs	4 4 4 5 6 6 6 6 7 4 4 7 6 7 6 7 6 7 6 7 6 7 6 7
Total Larvae	106 76 75 76 75 125 125 125 127 127 127 127 128 128 128 128 128 128 128 128 128 128
Percent Sorted	
Stand- ard Haul Factor	0.000000000000000000000000000000000000
Vol. Water Strained	44444444444444444444444444444444444444
Tow Depth	11111111111111111111111111111111111111
Time (PST)	11251 11806 11806 00306 00306 00859 00551 00551 00551 00551 00551 00651 00651 00651 00651 00651 00651 00651 00651 00651 00651 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751 00751
Tow Date yr. mo. day	\$59 07 27 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Ship	
Long.(W) deg. min.	11111111111111111111111111111111111111
Lat.(N) deg. min.	229 330 346 229 330 346 229 330 346 229 330 346 229 340 346 229 340 346 229 340 346 229 340 346 229 340 346 229 340 346 229 340 340 340 340 340 340 340 340 340 340
Station	0070888 WWW 44 WW 0007 L WW 0007 L WW 0007 L WW 0007 L W
Line	

CalCOFI Cruise 5907

Total	200 336 336 336 336 336 336 336 3	)
Total Larvae	121 120020 122 1230 1230 1230 1230 1230	>
Percent Sorted		
Stand- ard Haul Factor	22222222222222222222222222222222222222	
Vol. Water Strained (cu. m)	444044444444600404646464646464646464646	7 - 7
Tow Depth	138 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	p p
Time (PST)	00000000000000000000000000000000000000	) 
Tow Date yr. mo. day	559 07 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Ship		1
Long.(W) deg. min.	11116 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Lat.(N) deg. min.	229 229 229 229 229 229 229 229 229 229	000
Station	888 88 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	ĵ
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Total	10.00
Total Larvae	22 115 22 110 22 13 33 33 4 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7
Percent Sorted	
Stand- ard Haul Factor	27777777777777777777777777777777777777
Vol. Water Strained (cu. m)	00000000000000000000000000000000000000
Tow Depth	111339 111339 111339 111339 111339 111339
Time (PST)	11945 11946 11
Tow Date yr. mo. day	559 07 117 559 07 117 559 07 117 559 07 117 559 07 118
Ship	
Long.(W) deg. min.	1115 5 3 3 1 1 1 1 1 1 2 1 2 1 1 1 1 1 2 1 2 1
Lat.(N) deg. min.	227 01.5 286 584.0 286 584.0 286 584.0 286 584.0 286 585.0 286 585.0 286 585.0 286 585.0 286 585.0 286 585.0 286 585.0 287 586.0 288 586.0
Station	0.0000 40 40 80 80 80 80 80 80 80 80 80 80 80 80 80
Line	12233300 12233300 12233300 12233000 122330000000000

CalCOFI Cruise 5908

Total Eggs	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total Larvae	1
Percent Sorted	
Stand- ard Haul Factor	EEGGGGEGEGGEGGGGGGGGGGGGGGGGGGGGGGGGGG
Vol. Water Strained (cu. m)	44404444004440004440044404444444444444
Tow Depth	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Time (PST)	03239 03239
Tow Date yr. mo. day	\$59 08 15 \$59 08 15 \$59 08 15 \$59 08 15 \$59 08 15 \$59 08 15 \$59 08 15 \$59 08 16 \$59 08 17 \$59 08 11 \$59 08 11 \$59 08 11 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 18 \$59 08 20 \$50 08 20 \$50 08
Ship	888888888888888888888888888888888888888
Long.(W) deg. min.	120 52 121 150 122 150 122 150 123 150 124 150 125 150 127 150 127 150 128 150 129 150 120
Lat.(N) deg. min.	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Station	88888000000000000000000000000000000000
Line	777

	Total	101 102 000 000 000 000 000 000 000 000
	Total Larvae	23 24 445 10 11 10 11 11 11 11 11 11 11
	Percent	
	Stand- ard Haul Factor	626674 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	Vol. Water Strained (cu. m)	00000100000000000000000000000000000000
8069	Tow Depth	11398 11398
	Time (PST)	150 100 100 100 100 100 100 100 100 100
CalCOFI Cruise	Tow Date Yr. mo. day	\$25299999999999999999999999999999999999
	Ship Code y	888888888888888888888888888888888888888
	Long.(W) deg. min.	121 57.0 117 21.5 118 22.0 118 12.5 118 33.5 118 33.5 118 33.5 119 17.0 110 20 21.0 120 25.0 121 15.0 121 15.0 121 15.0 121 15.0 121 15.0 121 15.0 121 15.0 122 23.0 123 30.0 124 40.0 125 49.5 126 43.0 127 47.0 128 47.0 129 47.0 120 24.0 120 24.0 120 24.0 121 27.0 122 24.0 123 27.0 124 27.0 125 27.0 126 27.0 127 27.0 128 27.0 129 27.0 120
	Lat.(N) deg. min.	331 254 0 345 255 0 357 256 0
	Station	628844477766778888888484477766778888844477767788888888
	Line 8	000000000000000000000000000000000000000

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Total	41 71 32	72	175	27	19	107	2	77	28	97	153	113	92	13	35	51	117	102	137	170	45	12	36	25	44	148	)
Total Larvae	23 216 571	425 510	494	97	115	106	253	117	14	17	264	399	224	161	34	23	323	152	53	54	35	244	988	45	110	460	2
Percent	100.0																								100.0		
Stand- ard Haul Factor	3.03 2.83 2.81	3.02	3.00	2.59	3.15	2.35	2.99	3.32	3 3 3	3.26	3.07	3.04	3.03	2.48	2.86	2.99	2.97	3.16	3.15	3.15	2.41	2.75	3.45	3.04	3.02	3.25	
Vol. Water Strained (cu. m)	458 471 478	461 456	465	492	448	417	454	423	438	427	446	460	454	186	480	467	471	447	448	448	112	484	419	458	448	435	r r
Tow Depth	139 133 134	139	140	127	141	140	136	140	139	139	137	140	138	131	137	140	140	142	141	141	27	133	145	139	133	142	0 = 1
Time (PST)	0911 0616 0346	0131	2016	1506	1106	2120	0206	0746	1101	1541	1801	2241	0316	1719	1231	1010	0521	2236	1126	0556	2254	0406	0646	1211	1446	1956	1677
Tow Date yr. mo. day	59 08 25 59 08 25 59 08 25	08	080	080	000	000	080	08	080	08	0 0	08	08	0.8	080	08	08	0.8	08	080	080	080	200	08	0 8	08	
Ship	8D 8D 8D	BD	BD	BD	GE CE	BD BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	n n
Long.(W) deg. min.	117 11.1 117 29.0 117 43.9	03.	44.	24.	57.	11.	43.	22.	41.	21.	43.	19.	00.	52.	19.	38.	180	59.	18.	000	17.	58.	18.	56.	36.	55.	- T
Lat.(N) deg. min.	30 34.2 30 27.9 30 22.0	0 14.	9 57.	39.	3 24.	25.	10.	54.	9 41.	21.	9 11.	3 57.	3 4 6 .	9 50.	36.	9 26.	9 07.	3 46.	36.	8 29.	9 22.	9 02.	52.	8 32.	8 22.	8 02.	
Station	40.0	55.0	65.0	75.0	82.0	32.0	40.0	50.0	55.0	65.0	70.0	80.0	0.06	33.0	40.0	45.0	22.0	65.0	70.0	80.0	30.0	40.0	45.0	55.0	60.0	70.0	0.01
Line	103.0	103.0	103.0	103.0	103.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	113.0	113.0	113.0	113.0	113.0	113.0	0.611

Total

	Total Larvae	
	Percent Sorted	
	Stand- ard Haul Factor	######################################
	Vol. Water Strained (cu. m)	01087777778010 0108777777777777777777777
2908	Tow Depth	14444444444444444444444444444444444444
Cruise	Time (PST)	00041 1808 11808 11808 11808 100056 10126 10126 10126 10126 10127 10236 10236 10326
CalCOFI Cru	Tow Date yr. mo. day	\$\text{5.55} \text{5.55} \text{5.56} \text
	Ship	8 B B B B B B B B B B B B B B B B B B B
	Long.(W) deg. min.	1118 346 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Lat.(N) deg. min.	224 44.0 226 23.5 24.0 226 23.5 24.0 226 23.5 24.0 226 24
	Station	8 2 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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	Total Eggs	99 90 90 90 90 90 90 90 90 90	
	Total Larvae	296 261 261 261 360 360 100 100 100 100 100 100 100 100 100 1	
	Percent Sorted		
	Stand- ard Haul Factor	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	
	Vol. Water Strained (cu. m)	6///000/000/000/000/000/000/000/000/000	
2908	Tow Depth	72 74 74 74 74 74 74 74 74 74 74 74 74 74	
	Time (PST)	10000000000000000000000000000000000000	
CalCOFI Cruise	Tow Date yr. mo. day	\$559 08 22 4 4 5 5 5 6 6 8 8 5 6 6 8 8 5 6 6 8 8 8 8 8	
	Ship Code y	**************************************	
	Long.(W) deg. min.	1114 425.2 1115 204.5 1115 204.5 1116 033.8 1117 203.8 1118 204.8 1118 203.0 1118 203.0 1118 203.0 1118 203.0 1118 203.0 1118 203.0 1119 203.0 1119 203.0 1111 203.0 1111 203.0 1112 203.0 1113 303.0 1114 455.0 1117 203.0 1118 303.0 1119 203.0 1111 203.0	
	Lat.(N) deg. min.	225 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
	Station	40000000000000000000000000000000000000	
	Line		

CalCOFI Cruise 5908

Total Eggs	1111 7144 1303 1344 144 1036 562	662 117 386
Total Larvae	22 22 162 103 103 39 53 247 200	988
Percent Sorted	1000.0 1000.0 1000.0 1000.0 1000.0	100.0
Stand- ard Haul Factor	1.46 1.32 1.32 1.59 1.59 1.159	2.03 1.70 1.88
Vol. Water Strained (cu. m)	642 642 642 642 642 642 642 643 643	564 610 582
Tow Depth	99 75 101 101 111 111	114 103 109
Time (PST)	0646 0957 0055 1920 1105 0638 0437 0100	1705 1450 0702
Tow Date yr. mo. day	59 08 27 59 08 27 59 08 28 59 08 28 59 08 28 59 08 28 59 08 28	080
Ship	H S H S H S H S H S H S H S H S H S H S	HS HS
Long.(W) deg. min.	113 18.7 110 394.8 111 04.2 111 20.8 111 41.5 112 30.5 112 32.0 112 32.0 112 33.8	
Lat.(N) deg. min.	22 54.2 22 40.2 23 23.8 23 12.2 22 54.0 22 48.0 22 27.5 14.2	
Station	555 665 765 765 765 765 765 765 765 765	60.0 16.0 25.0
Line	147.0 147.0 150.0 150.0 150.0 150.0 150.0	150.0 153.0 153.0

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Total	2 112 2 4 4 4 1 4 4 3 3 3 3 3 3 3 4 4 4 4 4 4 4
Total Larvae	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Percent Sorted	
Stand- ard Haul Factor	00000000000000000000000000000000000000
Vol. Water Strained	5010 5010
Tow Depth	114422 11442 114422 114422 114422 114422 114422 114422 114422 114422 114422 114422 114422 11442 1442 1442 1442 1442 1442 1442 1442 1442 1442 1442 1442 1442 1
Time (PST)	2305 01156 01156 01157
Tow Date yr. mo. day	\$2222222222222222222222222222222222222
Ship	888888888888888888888888888888888888888
Long.(W) deg. min.	1119 46 1119 1119 1119 1119 1119 1119 11
Lat.(N) deg. min.	239 239 239 239 239 239 239 239 239 239
Station	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Line	0.000000000000000000000000000000000000

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Total	132 132 132 132 132 132 132 132
Total	20 8 62 7 6 64 6 64 6 64 6 64 6 64 6 64 6 64
Percent Sorted	100000000000000000000000000000000000000
Stand- ard Haul Factor	20000000000000000000000000000000000000
Vol. Water Strained	44000000000000000000000000000000000000
Tow Depth	1133 1342 1362 1000 1000 1362 1363 1377 1377 1377 1377 1377 1377 1377
Time (PST)	2035 2035 2336 1050 11657 11657 11417 11417 11417 1167 1167 1167 1167
Tow Date yr. mo. day	555 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ship	800 800 800 800 800 800 800 800 800 800
Long.(W) deg. min.	1115 16 1115 16 1115 16 1115 16 1115 16 1115 16 11
Lat.(N) deg. min.	228 338 .0 228 185 .0 228 185 .0 228 185 .0 228 20 .0 229 20 .0 220 20 .0 22
Station	<pre></pre>
Line	117.0 1118.5 1118.5 1118.5 1118.5 1118.5 1120.0 1220.0 123.0 123.0 123.0 127.0 127.0 127.0 127.0 127.0 127.0 127.0 127.0 127.0

	Total	0 1 1 1 2 2 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Total	100 100 100 100 100 100 100 100 100 100
	Percent Sorted	
	Stand- ard Haul Factor	$\begin{array}{c} {\tt CGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG$
	Vol. Water Strained (cu. m)	0.040.00.044.04.04.04.04.04.04.04.04.04.
5910	Tow Depth	1007 10188 1028 1028 1038 1038 1038 1038 1038 1038 1038 103
	Time (PST)	11221 10335 10035 10121
CalCOFI Cruise	Tow Date yr. mo. day	559 10 26 559 10 26 559 10 26 559 10 26 559 10 26 559 10 27 559 10 17 559 10 17 550 10 17
	Ship Code	***************************************
	Long.(W) deg. min.	1224 2 20 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Lat.(N) deg. min.	41 044 0 044
	Station	74.27 89 84.20 80 80 80 80 80 80 80 80 80 80 80 80 80
	Line	0.000000000000000000000000000000000000

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Percent	Sorted	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	1001	100.0	100.0	100.0	0.001		000.	00.	00.	0.001	000	00.	00.	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Factor		0 0								0					0						9 1				0				0				0 0	2.92			
Vol. Water Strained	(cn. m)	504	518	529	417	548	492	466	470	458	\$ \$ \$ 0 \$ 0	400	485	509	551	328	430	559	511	630	487	620	510	484	287	484	512	435	406	7 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	485	475	390	488	461	468	489	
Tow	(B)	125	131	124	128	112	132	141	139	106	131	153	134	132	138	3 4 4	4.4.7	109	123	95	134	000	120	129	42	100	146	108	149	107	134	141	100	140	135	137	140	
Time	(PST)	0306	1746	1256	1216	1446	2246	0321	9080	9080	0541	2106	1701	1201	0853	0230	1206	1431	1721	2211	0236	2206	1936	1656	1408	1071	0426	2338	1816	9067	0536	0936	1207	1506	0146	1256	1646	
Tow Date		10	10	10	10	0 0	0	10	10	10	10	10	10	10	10	0 7	01	10	10	10	10	20	10	10	10	01	10	10	10	0 1	10	10	10	010	59 10 10	10	10	
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Long. (W)	deg. min.	59.	21.	02.	52.	12.	16.	59.	38.	35.	48	0.6	32.	13.	58	21.		24.	44.	26.	07.	37	58.	18.	39°	20.	01.	42.	28.	960	23.	56.	13.	39.	2	09.	21.	
Lat.(N)	deg. min.	20.	38.	17.	04.	54.	, ,	04.	44.	25.	19.	09.	28.	09.	15.	13.	5 1 .	43.	34.	14.	54.	50.0	40.	30.	20.	17.	41.	20.	58.	200	10.	54.	44.	233	32 02.0	16.	55.	
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	Line	73.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	80.0	80.0	0.08	80.0	80.0	82.0	83.0	0000	83.0	83.0	83.0	83.0	83.0	87.0	87.0	87.0	0.78	87.0	87.0	87.0	0.00	0.06	90.0	90.0	90.06	0.06	0.06	93.0	

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Total Eggs	4 6 6 7 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	0
Total Larvae	25 100 100 100 100 100 100 100 10	59
Percent Sorted		100.0
Stand- ard Haul Factor	7.7.7.8.2.8.2.8.2.2.2.2.2.2.2.2.2.2.2.2.	
Vol. Water Strained (cu. m)	55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	557
Tow Depth	100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	133
Time (PST)	00000000000000000000000000000000000000	2311
Tow Date	\$250.000.000.000.000.000.000.000.000.000.	9 10 1
Ship		OR
Long.(W) deg. min.	111	43.
Lat.(N) deg. min.	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11.
Station	WW44RNRPERWW44RNRPERRWW44RNRPERRWW6C80WWW44RNRPERRWW6C80WWW9C90000000000000000000000000000000	40.0
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	Total	2.2.0 0 8 8 8 8 9 1 1 1 2 2 2 2 8 8 8 8 9 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Total Larvae	0.00 110 100 100 100 100 100 100 100 100
	Percent	
	Stand- ard Haul Factor	288928939999999999999999999999999999999
	Vol. Water Strained	\$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50
5910	Tow Depth	11440 1140 11400 1
	Time (PST)	01146 00456 10456 10456 10456 10451 10413 10513 10513 10513 10513 10514
CalCOFI Cruise	Tow Date yr. mo. day	\$599 10 177  \$599
	Ship	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
	Long.(W) deg. min.	1177 03.0 1188 30.0 1199 19.0 1199 19.0
	Lat.(N) deg. min.	229 52.0 229 52.0 229 52.0 229 13.0 229 13.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 229 26.0 220 27 47.5 220 27 47.5 220 28 28.0 221 28.0 222 28.0 223 28.0 224 28.0 225 28.0 226 28.0 227 28.0 228 28.0 228 28.0 228 28.0 229 28.0 220 28.0 221 28.0 222 28.0 233 27 43.0 24 27 43.0 25 27 43.0 27 43.0 28 28.0 28 28 28 28 28 28 28 28 28 28 28 28 28 2
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Total	20 2 2 4 4 6 6 2 2 9 9 1 1 1 6 6 2 1 1 1 6 6 1 1 1 6 6 1 1 1 6 6 1 1 1 6 6 1 1 1 6 6 1 1 1 6 6 1 1 1 6 6 1 6 1
Total Larvae	100 100 100 100 100 110 111 110 110 110
Percent	
Stand- ard Haul Factor	22.22.22.22.22.22.22.22.22.22.22.22.22.
Vol. Water Strained	5510 5510
Tow Depth S (m) (	100010370188915720006961833722483786072170071707170717071707777777777777777
Time (PST)	00716 00716 10733 10736 10736 10736 10736 10737
Tow Date yr. mo. day	559 10 224 559 10 24 559 10 23 559 10 22 559 10 22 550 10 22
Ship	
Long.(W) deg. min.	1116 133 0 0 1111 1 1 1 1 1 1 1 1 1 1 1 1 1
Lat.(N) deg. min.	227 255 0 227 255 0 226 342 0 227 120 0 227 124 0 227 124 0 227 124 0 227 124 0 228 442 0 228 442 0 228 55 0 228 56 0 228 57 0 22
Station	0.000
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CalCOFI Cruise 5911

Total Eggs	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total Larvae	22 23 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Percent	
Stand- ard Haul Factor	72227777777777777777777777777777777777
Vol. Water Strained	00000000000000000000000000000000000000
Tow Depth	1222 1222 1223 1238 1238 1238 1238 1238
Time (PST)	000113100 003113100 003113100 00826 00826 00836 008430 11326
Tow Date	\$59   11   22   23   24   25   25   25   25   25   25   25
Ship	
Long.(W) deg. min.	121 06 122 1343 0 122 1343 0 122 1343 0 123 1343 0 123 1343 0 124 125 1343 0 125 1343 0 126 135 1 127 144 1 128 144 1 128 144 1 128 1 128 1 128 1 128 1 128 1 128 1 128 1 128 1 129 1 129 1 129 1 129 1 120
Lat.(N) deg. min.	333 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Station	0.000 0.000
Line	00000000000000000000000000000000000000

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Dorrent	Sorted	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0	100.0	100.0	0.001	100.0	100.0	1.00.0	100.0	100.0	100.0	100.0	100.0	0.001	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.001	0.001	100.0	100.0	100.0	100.0	•
Stand- ard	Factor	2.94	2.37	3.01	2.79	2./8	2.98	3.18	1.78	3.05	3.23	200	3.13	2.57	2.20	2.72	3.02	2.60	2.97	2.86	3.03	3.03	3.10	2.50	2.80	3.04	3.04	3.06	3.02	3.19	3.01	7.86	26.2	2.70	2.93	2.97	3.02	
Vol. Water	(cu. m)	483	523	475	490	482 734	450	451	75	467	436	447 452	454	500	528	203	475	479	459	4/9	4/3	464	450	498	482	462	454	463	450	463	483	46/	010	479	468	470	46/	7
	(m)	142	124	143	137	134 181	138	143	13	143	141	137	142	129	116	55	143	125	136	13/	147	141	139	124	135	141	139	140	144	139	138	136	120	140	139	134	141	1
, E		1451	1951	0101	1916	1691	1301	2346	0354	0536	1146	1000	1336	1106	0746	0518	0146	2311	0436	1831	0156	050	9080	1106	1626	9170	0310	0626	0311	2356	2041	1 6 7 T	9061	0836	0251	2146	1231	1621
4	yr. mo. day	4	59 12 09	12	12	77	12	12	12	12	12	77	12	12	12	12	12	12	12	12	77	12	12	12	12	12	12	12	12	12	12	7.7	77	13	12	12	12	7.7
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7 27 200	deg. min.		121 33.4																																			
200	deg. min.	57.	34 43.5	25.	20.	14.	080	. 7.	13.	07.	51.	44.6	30.	An	29.	19,	12.	00	27.	20.	08.	00 V	37.	25.	04.	45.	.07	55.	49.	39.	27.	19.	07.	00 A 6	27.	07.	49.	000
	Station	53.0	55.0	70.0	53.0	55.0	0.09	77.0	40.0	43.0	51.0	55.0	35.0	A0.0	45.0	50.0	55.0	0.09	28.0	32.0	37.0	0.04	55.0	0.09	70.0	0.08	0.00	28.0	30.0	35.0	40.0	45.0	50.0	0000	70.0	80.0	90°0	100.0
	Line	77.0	77.0	77.0	80.0	80.0	80.0	0.00	83.0	83.0	83.0	83.0	83.0	87.0	87.0	87.0	87.0	87.0	0.06	0.06	0.06	0.00	0.06	0.06	0.06	0.06	0.06	93.0	93.0	93.0	93.0	93.0	93.0	03.0	93.0	93.0	93.0	93.0

TABLE 2. Pooled occurrences of fish larvae taken during CalCOFI cruises in 1959.

Rank	Taxon	Occurrences
1	Vinciquerria lucetia	1209
2	Triphoturus mexicanus	1069
3	Engraulis mordax	888
4	Sebastes spp.	602
5	Cyclothone spp.	514
6	Diogenichthys laternatus	442
7	Lampanyctus ritteri	429
8	Protomyctophum crockeri	424
9	Ceratoscopelus townsendi	373
10	Disintegrated fish larva	361
11	Merluccius productus	340
12	Stenobrachius leucopsarus	327
13	Leuroglossus stilbius	324
14	Trachurus symmetricus	286
15	Bathylagus wesethi	275
16	Unidentified fish larva	272
		260
17	Lampanyctus spp.	245
18	Myctophidae	
19	Melamphaes spp.	209
20	Symbolophorus californiensis	191
21	Gonichthys tenuiculus	181
21	Stomias atriventer	181
23	Sardinops sagax	172
24	Paralepididae	165
25	Hygophum atratum	138
26	Citharichthys stigmaeus	134
27	Labridae	122
28	Citharichthys spp.	121
29	Lampadena urophaos	120
30	Citharichthys xanthostigma	118
31	Diogenichthys atlanticus	116
32	Tarletonbeania crenularis	113
33	Gobiidae	108
34	Citharichthys fragilis	106
34	Bathylagus ochotensis	106
36	Myctophum nitidulum	105
37	Diaphus spp.	103
38	Sternoptychidae	94
39	Scopelarchidae	93
40	Hygophum spp.	91
41	Diogenichthys spp.	79
42	Notoscopelus resplendens	76
43	Symphurus spp.	75
43	Chiasmodontidae	75
45	Icichthys lockingtoni	74
46	Chauliodus macouni	72
47	Sciaenidae	71
48	Serranidae	66

## TABLE 2. (cont.)

Rank	Taxon	Occurrences
48	Synodus spp.	66
50	Scomber japonicus	65
51	Trichiuridae	61
52	Scopelogadus bispinosus	60
53	Hypsoblennius spp.	59
54	Ceratioidei	50
55	Citharichthys sordidus	48
55	Lyopsetta exilis	48
57	Lampanyctus regalis	46
58	Ophidion scrippsae	44
59	Ophidiiformes	43
59	Ichthyococcus spp.	43
61	Idiacanthus antrostomus	38
62	Paralichthys californicus	37
63	Diplophos taenia	36
63	Seriola lalandi	36
65	Anguilliformes	33
66	Hippoglossina stomata	32
67	Etrumeus acuminatus	31
68	Argentina sialis	30
69	Parophrys vetulus	29
70	Scorpaena spp.	28
70	Prionotus spp.	28
72	Cottidae	27
72	Coryphaena hippurus	27
72	Sphyraena argentea	27
72	Nansenia crassa	27
76	Tetragonurus cuvieri	26
76	Carangidae	26
78	Microstoma microstoma	25
79	Peprilus simillimus	22
80	Cololabis saira	20
80	Etropus spp.	20
80	Microstomus pacificus	20
80	Auxis spp.	20
84	Pomacentridae	18
85	Chilara taylori	17
85	Poromitra spp.	17 16
87	Hygophum reinhardtii	16
87	Chromis punctipinnis	16
87	Scopelosaurus spp.	15
90	Clinidae	13
91	Nansenia candida	13
91	Bregmaceros spp.	13
91 91	Bathylagus pacificus Stomiiformes	13
95	Trachipteridae	12
96	Aristostomias scintillans	11
96	Haemulidae	11
50	паешиттиае	1.1

# TABLE 2. (cont.)

Rank	Taxon	Occurrences
98	Brosmophycis marginata	10
98	Caulolatilus princeps	10
98	Sebastolobus spp.	10
101	Mugil spp.	9
101	Loweina rara	9
101	Nomeidae	9
101	Sarda chiliensis	9
101	Brama spp.	9
106	Agonidae	8
106	Glyptocephalus zachirus	8
106	Syacium ovale	8
109	Bathophilus spp.	7
109	Bathylagus spp.	7
109	Pleuronichthys spp.	7
109	Gerreidae	7
109	Pleuronichthys verticalis	7
114	Zaniolepis spp.	6
114	Evermannellidae	6
114	Mullidae	6
114	Exocoetidae	6
118	Apogonidae	5
118	Pleuronectiformes	5
118	Xystreurys liolepis	5
118	Pleuronichthys coenosus	5
122	Myctophum aurolaternatum	4
122	Gempylidae	4
122	Pleuronichthys decurrens	4
122	Scorpaenichthys marmoratus	4
122	Bothus spp.	4 3
127 127	Syngnathus spp.	3
	Euthynnus spp.	3
127 127	<i>Oxylebius pictus</i> Macrouridae	3
127		3
127	<i>Psettichthys melanostictus</i> Scombridae	3
127	Notolychnus valdiviae	3
133	Scorpaenidae	3 2
133	Hypsypops rubicundus	2
133	Scomberomorus spp.	2 2
133	Engraulidae	2
133	Pleuronichthys ritteri	2
133	Tactostoma macropus	2
133	Physiculus spp.	2
133	Girella nigricans	2
133	Electrona rissoi	2
133	Thunnus albacares	2
133	Cyclopteridae	2
133	Icosteus aenigmaticus	2
146	Citharichthys platophrys	1

### TABLE 2. (cont.)

Rank	Taxon	Occurrences
146	Priacanthidae	1
146	Opisthonema spp.	1
146	Lophiidae	1
146	Uranoscopidae	1
146	Medialuna californiensis	1
146	Macroramphosus gracilis	1
146	Bathylagus milleri	1
146	Seriola spp.	1
146	Atherinidae	1

TABLE 3. Pooled numbers of fish larvae taken during CalCOFI cruises in 1959. Counts are adjusted for percent of sample sorted and standard haul factor (see text).

Rank	Taxon	Count
1	Engraulis mordax	207333
2	Vinciguerria lucetia	117811
3	Triphoturus mexicanus	33817
4	Merluccius productus	17761
5	Sebastes spp.	11427
6	Leuroglossus stilbius	7673
7	Stenobrachius leucopsarus	7253
8	Diogenichthys laternatus	6325
9	Sardinops sagax	5368
10	Ceratoscopelus townsendi	4454
11	Trachurus symmetricus	4080
12	Cyclothone spp.	3888
13	Lampanyctus ritteri	2409
14	Bathylagus wesethi	2395
15	Prionotus spp.	2157
16	Disintegrated fish larva	2060
17	Protomyctophum crockeri	2034
18	Myctophidae	1641
19	Citharichthys fragilis	1585
20	Lampanyctus spp.	1476
21	Unidentified fish larva	1425
22	Symbolophorus californiensis	1132
23	Citharichthys xanthostigma	968
24	Citharichthys spp.	917
25	Lampadena urophaos	860
26	Stomias atriventer	835
27	Melamphaes spp.	829
28	Gonichthys tenuiculus	795
29 30	Tarletonbeania crenularis	782
31	Serranidae	762
32	Sciaenidae	733
33	Diaphus spp.	723
34	Hygophum atratum	696
35	Paralepididae	649
36	<i>Diogenichthys atlanticus</i> Labridae	637
37		618 613
38	Synodus spp.	611
39	Citharichthys stigmaeus	61:0
40	Etrumeus acuminatus	592
41	Diogenichthys spp. Bathylagus ochotensis	546
42	Notoscopelus resplendens	526
43	Scomber japonicus	490
44	Hygophum spp.	460
45	Gobiidae	458
46	Symphurus spp.	422
47	Myctophum nitidulum	408
- /	ge copitali ili cidalali	400

## TABLE 3. (cont.)

Rank	Taxon	Count
48	Icichthys lockingtoni	394
49	Auxis spp.	386
50	Scopelarchidae	337
51	Ophidion scrippsae	334
52	Sternoptychidae	326
53	Trichiuridae	324
54	Carangidae	306 276
55	Ophidiiformes	259
56 57	<i>Hypsoblennius</i> spp. Anguilliformes	255
58	Chauliodus macouni	248
58	Paralichthys californicus	248
60	Lyopsetta exilis	243
61	Chiasmodontidae	242
62	Parophrys vetulus	226
63	Scopelogadus bispinosus	209
64	Ceratioidei	192
65	Sphyraena argentea	190
66	Citharichthys sordidus	188
67	Lampanyctus regalis	176
68	Scorpaena spp.	167
69	Seriola lalandi	166
70	Pomacentridae	145
71	Idiacanthus antrostomus	128
72	Cottidae	127 126
73 74	Diplophos taenia	120
74 75	Ichthyococcus spp. Tetragonurus cuvieri	114
76	Etropus spp.	109
77	Hippoglossina stomata	103
78	Argentina sialis	101
79	Microstoma microstoma	95
80	Clinidae	93
81	Gerreidae	86
82	Peprilus simillimus	83
83	Nansenia crassa	82
84	Coryphaena hippurus	77
84	Haemulidae	77
86	Microstomus pacificus	76
87	Cololabis saira	75
88	Bregmaceros spp.	63 63
88 90	Bathylagus pacificus	61
90	Chromis punctipinnis Nansenia candida	61
92	Poromitra spp.	59
92	Hygophum reinhardtii	59
94	Chilara taylori	58
95	Scopelosaurus spp.	57

# TABLE 3. (cont.)

Rank	Taxon	Count
96	Sebastolobus spp.	55
97	Sarda chiliensis	45
98	Syacium ovale	40
99	Brosmophycis marginata	37
99	Stomiiformes	37
101	Trachipteridae	35
102	Aristostomias scintillans	34
103	Nomeidae	32
103	Caulolatilus princeps	32
105	Bathophilus spp.	31
106	Mullidae	30
107	Glyptocephalus zachirus	29
108	Brama spp.	26
109	Scombridae	25
109	Mugil spp.	25
111	Loweina rara	24
112	Bathylagus spp.	23
113	Pleuronichthys spp.	22
114	Pleuronichthys verticalis	21
114	Agonidae	21
116	Exocoetidae	20
117	Pleuronectiformes	19
118	Electrona rissoi	17
119	Myctophum aurolaternatum	16
119	Zaniolepis spp.	16
119	Evermannellidae	16
119	Xystreurys liolepis	16
123	Pleuronichthys coenosus	15
124	Bothus spp.	14
124	Apogonidae	14
126	Pleuronichthys decurrens	13
127	Notolychnus valdiviae	12
128	Cyclopteridae	11
129	Scorpaenichthys marmoratus	10
130	Icosteus aenigmaticus	9
130	Engraulidae	9
130	Psettichthys melanostictus	9
133	Macrouridae	8
133	Gempylidae	8
133	Syngnathus spp.	8
133	Oxylebius pictus	8
137	Hypsypops rubicundus	7
138	Girella nigricans	6
138	Tactostoma macropus	6
138	Pleuronichthys ritteri	6
141	Euthynnus spp.	5
141	Scorpaenidae	5
141	Physiculus spp.	5
144	Opisthonema spp.	4

TABLE 3. (cont.)

Rank	Taxon	Count
144 144 147 147 147 147 147 147	Scomberomorus spp. Atherinidae Bathylagus milleri Seriola spp. Medialuna californiensis Lophiidae Macroramphosus gracilis Thunnus albacares Citharichthys platophrys	4 4 3 3 3 3 3 3 3 3 3
147 155	Uranoscopidae Priacanthidae Total	3 2 471006

TABLE 4. Numbers of fish larvae taken on stations occupied during CalCOFI cruises in 1959. Counts are adjusted for percent of sample sorted and standard haul factor (see text). Average number is adjusted for stations occupied more than once during a calendar month. Unoccupied stations are indicated by a dash.

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	SEP.	11111	9.21.1	0.0 0.0 119.9 91.6 5.9	1 1 1 1	11111	SEP.  0.0 10.0 11.8 1.8 5.2 149.1 0.0 0.0 0.0 2.5 2.8 2.8 0.0 19.9
	AUG.	3.2	0.00	1:0	2.2 0.0 1.7	0.0	AUG. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
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	STATION	67.0 97.0 113.0 113.0	121.3 123.0 127.0	130.0 130.0 130.0 133.0 137.0	140.0 140.0 140.0	150.00 150.00 157.00 157.00	STATION 119.0 120.0 120.0 120.7 121.3 121.3 127.0 127.0 127.0 127.0 130.0

TABLE 4. (cont.)

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	oct.	000000000000000000000000000000000000000		OCT.	1		OCT.	000010100104000000000000000000000000000	
	SEP.	13.1		SEP.	1		SEP.	00000	
	AUG.	36.6 1.4 3.4 0.0		AUG.	4.0		AUG.	000 0 000000000000000000000000000000000	
(cont.)	JULY	00001111	.0	JULY	1		JULY	185.4 185.9	,
natus	JUNE	0001111	Opisthonema spp	JUNE	1	s sagax	JUNE	10000000000000000000000000000000000000	) )
s acumi	MAY	0.00	pisthor	MAY	ı	Sardinops	MAY	22.4 21.3 21.3 21.3 21.3 21.3 21.3 21.3 21.3	)
Etrumeus acuminatus	APR.	000000	0	APR.	0.0	S	APR.	14.7 14.7 14.7 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	,
1	MAR.	0000		MAR.			MAR.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	>
	FEB.	0.00		FEB.			FEB.	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	)
	JAN.	0.0 0.0 0.0 14.8 16.1		JAN.	0.0		JAN.	211.2 18.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	,
	NC	30.0 30.0 30.0 30.0 30.0 35.0		NO	30.0		NC	50.00 50.00 50.00 60	
	STATION	133.0 137.0 140.0 143.0 143.0		STATION	143.0		STATION	77777777777777777777777777777777777777	>

	DEC.	0000
	NOV.	0000
	OCT.	132.9 129.1 129.1 120.0 100.0 120.0
	SEP.	318.1 121.3 12
	AUG.	2 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
(cont.)	JULY	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	JUNE	000000000000000000000000000000000000000
Sardinops sagax	MAY	1
Sardi	APR.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	MAR.	
	FEB.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	JAN.	24 - 4 - 7 - 2 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2
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	STATION	933.0 933.0

TABLE 4. (cont.)

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(cont.)	JULY	0000		JULY	1 1	×	JULY	14.3	14.3	26.6	11.4	2.5	0.0	10.6	86.3	0.0	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0	23.2	57.4	7,90	7.47	43.5
gax (c	JUNE	000011111	Engraulidae	JUNE	1 1	s mordax	JUNE		1	1 1	i	ŀ	ı	1 1	1	1	ı	1 1	1	1	ı	ı	1	1	ļ	ł	1 (	] ]	1
Sardinops sagax	MAY	0000	Engra	MAY	1 1	Engraulis	MAY	0.0	0.0	28.3	0.0	0.0	1	0.0	23.0	6.2	0.0	1.0V	641.4	6.3	234.9	0.9	100.3	ł	2.9	52.9	52.8	1 1	24.7
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	MAR.	41.1		MAR.	9 1		MAR.		ı	1 1	ı	1	ı	1 1	1	1	ı	1 1	1	1	1	ì	1	ı	t	I	1 1	1 1	ŧ
	FEB.	28.7 138.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		FEB.	1 1		FEB.		1	1 1	ı	1	I	1	1	1	I	1 1	1	1	1	1	ı	ı	I	ı	1	1 1	1
	JAN.	0.0 0.0 2.1 87.4 68.3 111.4 2.3		JAN.	0.0		JAN.	10.5	0.0	0.0		0 0		2°0		ı	0.0	2.50	0.0	1	0.0	I		0.0		۵° ۵°	0	10	0
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	STATION	133.0 133.0 137.0 143.0 147.0		STATION	143.0		STATION	0.09						63.0															

Engraulis mordax (cont.

144.9 144.9 10.0 DEC. NOV 0 0 SEP AUG 30.6 03.2 28.2 9.0 248.5 238.5 27.8 27.8 6.1 0.0 113.0 17.9 17.9 17.9 11.4 221.4 20.5 90.2 JULY 18. 0.0 144.4 130.6 104.5 135.8 120.9 26.4 103.9 091.4 150.0 740.0 194.2 23.4 23.4 20.0 27.0 12.1 12.1 66.7 66.7 134.0 134.0 134.0 100.6 146.9 140.0 0.0 00 01211111111111 13.99 35.23 35.22 17.00 17.00 6.11 6.11 6.11 6.11 MAY 26.2 271.8 -34.9 105.0 11120.0 965.7 3095.6 9.2 9.2 614.0 APR 640 545 4.70°. 4.70°. 4.0°. MAR 914.8 563.6 2059.5 187.0 356.1 266.6 0.0 1144.9 301.3 985.9 1715.4 1927.6 218.8 0 4 9 3785.0 3785.0 10.0 10.0 10.0 10.0 1302.0 22234.7 2156.4 929.6 6.1 FEB 19.5 196.7 11.6 0.0 0.0 8.2 8.4 8.4 278.3 869.4 869.4 14.5 546.5 14.5 2.8 80.3 80.3 80.3 1314.1 224.3 224.3 224.3 JAN. STATION 

	DEC.	15.7	0.00	106.9 22.9 14.9 12.0 3.0 3.1	0.0 0.0 0.0 3.1 15.1 3.2	000000000000000000000000000000000000000
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	OCT.	17.4	0.0000000000000000000000000000000000000	0.000000	0.0000000000000000000000000000000000000	0000 0 00000000
	SEP.	1111	111111	13.7 11.3 10.0 0.0 0.0 0.0 5.7	0000 9000	00000000
	AUG.	13.2	000000	111.2 24.7 2.8 3.0 0.0	0000 1 1000	000000000000000000000000000000000000000
cont.)	JULY	33.9 0.0 7.7 17.5	57.2 0.0 0.0 0.0 0.0	11.4 0.0 0.0 8.3 2.4 0.0	00000000000000000000000000000000000000	54.1 2.7.2 2.6 0.0 0.0 0.0 1.74.8 1.74.8 0.0
mordax (	JUNE		65.8 1185.0 154.2 42.0 15.3		15.9 6.3 104.5 66.2 61.8	2000 1000 1000 1000 1000 1000 1000 1000
15	MAY	6.0 108.4 64.2 174.6 331.5	262.7 118.6 287.3 34.1 12.2 0.0	818.1 329.6 153.9 153.0 159.0 229.7 79.8	23.9 0.0 0.0 0.0 10.0 118.9	12195. 12196. 12196. 12196. 122.7 123. 1308. 1308. 1308. 1308. 1308. 1308. 1308. 1308. 1308.
Engraul	APR.	30.1 266.1 915.1 552.1	68.6 69.7 316.0 8.7 8.7 0.0	274.4 1504.5 187.0 1527.0 820.1 2088.0	5.8 0.0 0.0 10.0 316.2 207.4 54.5	2842.6 649.0
	MAR.	570.4 275.3 543.3		38.7 67.6 69.4 917.3 3477.6 294.7 294.7	0 00 6 157	100.00 10
	FEB.	469.0 1096.2 1263.5	10.0 162.9 - 565.0 - - 0.0			4065.8 4066.1 1941.1 1941.1 100.0 10.0 10.0 10.0 10.0 10.0
	JAN.	393.6	137.2	167.0 14.5 5.6 0.0 0.0	39.1	13.50 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1
	Z	90.0 45.0 50.0	55.0 60.0 70.0 75.0 90.0	228.0 332.0 445.0 55.0 65.0	70.0 75.0 80.0 90.0 227.0 35.0	44 0 3 0 3 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	STATION	83.0 87.0 87.0 87.0	87.0 87.0 87.0 87.0	0000000000	000000000000000000000000000000000000000	0.000000000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	000000000000000000000000000000000000000
	SEP.	22.2 2.2.3 2.2.3 3.00 3.1
	AUG.	080000040100678000000000000000000000000000000000
(cont.)	JULY	00.011188 00.0101110001 00.01010000000000
	JUNE	202225 20338 20338 4001 11001 11101 1101
Engraulis mordax	MAY	226.6 60.3 60.3 60.3 60.3 60.3 60.3 60.3 6
Engrau	APR.	100 100 100 100 100 100 100 100
	MAR.	162.56 62.44 62.45
	FEB.	2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
	JAN.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
	STATION	0.000000000000000000000000000000000000
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TABLE 4. (cont.)

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	SEP.	102.5 102.5 102.5 102.6 102.6 100.0	
1	AUG.	4 4 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1
cont.)	JULY	111.00.00.00.00.00.00.00.00.00.00.00.00.	,
_	JUNE	124.0 125.6 10.0	,
ulis mordax	MAY	14000 14000 14000 100000 100000 100000 100000 10000 10000 10000 10000 10000	
Engraul	APR.	11 1251 11 137 12 137 13 10 14 16 14 16 14 16 17 16 18 16 19 17 19 17 10 10 10 10 10 10 10 10 10 10 10 10	0
	MAR.	2 2 4 4 8 8 4 8 8 8 8 9 8 9 9 9 9 9 9 9 9 9	)
	FEB.	E C C C C C C C C C C C C C C C C C C C	
	JAN.	234.2 234.2 234.2 50.0 0.0 0.0 10.0	
	STATION	117.0   45.0   117.0   47.0   47.0   47.0	0

TABLE 4. (cont.)

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	AUG.	0.0			0			0.0										AUG.	ı																	0		0.0			
(cont.)	JULY	30.8	2.8	0.0	, ,	0.0	0.0	0.0	ì	ı	ı	ı	ı	ı	ı	1	Ŋ	מתר	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		•	3.0	0.0	0.0	0.0
	JUNE	0.0		0.0	0	0 0			1	ı	1	ı	ı	ı	ı	1	siali	JUNE	1	- 4																		0.0			
Engraulis mordax	MAY	0.0	ı	100	0 · 0	10.0	0.0	0.0	ı	ı	1	1	ı	1	1	ł	Argentina	MAY	0.0	0.0	0.0	2.8	0.0	0.0	0.0	2.8	2.7	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Engrau	APR.	0.0	ı	0.0	7.7	24.	0.0	0.0	11.2	0.0	0.0	25.2	5.6	41.7	0.0	0.0	Ar	APR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	0.0	)	0.0	2.8
	MAR.	0.0		14.8					1	ı	ŀ	ı	ı	ı	:	i		MAR.		1	1	1	Į												0					0	
	FEB.	3.0		3.2	n <	, C	. 4	· "		ı	1	I	1	ı	ŀ	ŀ		FEB.	1 4							0							0				0	0.0		0	
	JAN.	0.0	1	103.5	n -		2.7	0.0	7.0	0.0	0.0	14.8	0.9	0.0	7.9	14.3		JAN.	1 1																			0 0			0.0
		45.0	70.0	36.0	23.0	35.0	40.0	45.0	30.0	40.0	45.0	26.0	30.0	20.0	25.0	30.0		Z	51.0	77.0	60.0	70.0	47.0	43.0	35.0	40.0	28.0	29.0	30.0	35.0	45.0	32.0	45.0	30.0	35.0	40.0	39.0	70.0	50.0	30.0	35.0
	STATION	133.0	133.0	134.0	13/.0	137.0	137.0	137.0	140.0	140.0	140.0	143.0	143.0	147.0	147.0	147.0		STATION	73.0	80.0	0.08	80.0	82.0	83.0	87.0	87.0	0.06	100.0	100.0	103.0	103.0	107.0	113.0	117.0	117.0	11/00	130.0	120.0	123.0	133.0	133.0

TABLE 4. (cont.)

				Micr	Microstoma microstoma	micros	toma					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0		1	2.8	0.0	1	3.8	í	1	0.0	1	ı
	1	2.2	F	1 4	1 0	ı	1 0	ı	ı	10	ı	ı
	0.0	0.0	ı	0.0	0.0	1 1	0.0	1 1	l I	C-7	) [	1 1
	1 0	10	1	1 9	000	0	1001	1	1	0.0	0 0	0.0
	0.0	0.1	1	0.0	0.0	0.0	3.2	1	1	0 1	0	)
	1 1	- 1	ı	0.0	3.0	3.0	0.0	0.0	i	ı	ı	ı
	ı	ì	ł	0.0	0.0	0.0	5.9	1	1	ı	ı	
	0.0	0.0	ı	0.0	3.0	0.0	0.0	0.0	ı	0.0	0.0	0.0
	0	0.0	1	0.0	0.0	0.0	0.0		ı	0.0	0.0	2.6
	ŀ	0.0	1	0.0	3.4	0.0	0.0		1 (	0.0	1	i
	ı	1	0.0	1	0.0	2.8	0.0	0.0	0.0	1 0	1 0	1 0
	£	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1	0.0	0.0	0.0	0.0	0.0	 	0.0	000	000		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	•				
	0.0	0.0	0.0	000		, ,	000					0.0
	0.0	0.0	0.1	0.0	0.0			0.0	0.0	) ) ) )	)	
	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0		0.0	ı	1
	0	)	)	0.0	0.0	0.0	3.0	0.0	ı	14	ł	ı
97.0 80.0	0.0	2,3	1 0	0.0	0.0	0.0	0.0	0.0	1 1	0.0	1 1	1 1
	0.0		2.5	0.0	0.0	0.0	0.0	0.0	1	0.0	ı	
				N	Nansenia	candida	la					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
	0.0			0.0	3.4		0.0		ı	0.0	ı	ı
		ı	1	1	3.5	ı	0.0	1	ı	1	ı	ı
	0.0	1	ŀ	18.3	0.0	1	0.0	t	1	0.0	ı	1
	1	1	1	5.7	0.0	ı	0.0	I	1	1 9		1
	0.0	0.0	I	0.0	3.0	1	000	1 1	1 1	•	1 1	1
			l	0.0	, ,	1	3.0	ı	8	) ) ) 	ı	ŝ
	1		1	0.0	2.9	0.0	0.0	ı	ı	0.0	ı	ł
	1	ı	ł	1	5.7	1	1	ı	ı	1	ı	1
	ı	ı	1	1	3.1	į	ı	1	1	1 1	1 (	1 (
0.09 0.78	1	1.5	1	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0
	I	1 0	1	0.0	0.0	2.8	1 0	000	i I	1 0	1 1	1
	I	0.0	ı	0.0	0.0	3.1	0.0	0	ı	0.0		
				V	Nansenia	a crassa	a					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JONE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	0	0	0		٦ ،	0	0	0		0.0	ı	ı
100.0 20.0	0.0	0.0	0.0	0.0	1.0		2	3		•		

				Nanse	Vansenia crassa	_	cont.)					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1		0.0	0.0	0.0	0.0	0.0	0.0	3.1		0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	ı	0.0	Ι,	I
	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	ı	0.0	1	1
	0.0	0.0	0.0	0.0	5.7	0.0	0.0	3.0	ı	0.0	1	ı
110.0 45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1	0.0	1	ı
	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	ı	ı
	)	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	ı	ı
	2.5	0.0	0.0	2.3	0.0	0.0	0.0	0.0	ı	0.0	1	ı
	1 1	0.0	0.0	0.0	3.2	0.0	0.0	0.0	ı	1	1	1
	1	0.0	0.0	0.0	0.0	0.0	2.9	0.0	ı	ı	ı	ł
	0.0	) ) )		0.0	0.0	0.0	0.0	ı	1	2.7	1	ı
	2	0	0	0.0	0.0	0.0	0.0	0.0	1	0.0	ì	ı
	10	200		0.0	0.0	0.0	0.0	0.0	ł	0.0	1	ı
	. 1			)	0.0	0.0	0.0	0.0	ı	2.7	ı	ı
	0		0.0	ı	0.0	0.0	0.0	0.0	0.0	2.9	1	1
	000		2 4	0							1	I
	0.7				000			000			1	ı
			0.0		000	000	000	000	ı		ı	1
	0.0	0,0	000	0.0	000	000			1		ı	ı
	000	200	0.0	0.0	0,0	000		000	ı	•	ı	ı
	000	0.0	0.0	2.0	0 1	0 1	0 1	000	ı		ı	ı
				0.00			1	000	ı	ı	ı	ı
	000			6.7		,	ı	000	ı	ı	ı	ı
	7.0	l	i	ı				0.0				
					Bathylagus spp	dds snb						
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1												10
	0.0	2.0	0.0	0.0	0.0	0.0	1 0	0.0	0.0	0.0	0.0	0.0
	1 0	0.0	0.0	0.0	0.0	0	0.0	,	•	•	0	
	0.0	0.0	, c	0.0	0.0	) ° C	0.0				٥	
	0.0	0.1	0.0		000	7 . 7	0.0	° 1	٥		ı	ı
	0	0	0	٥	200	0.0	0.0	0.0	ŀ	0.0	1	i
133.0 65.0	)	)	)	ı	1		2.7	1	ı	ı	I	1
				Ba	Bathylagus	s milleri	ri					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1												1 0
80.0 53.0	ı	3.1	ı	I	1	1	ı	ı	i	ł	0.0	0.0

SEP. Bathylagus ochotensis JUNE STATION 

OBC DEC 111001110001100000100001111111 1111101000 00 000 0000 0000 0 000 111001110001110000100001111111 1111101000 000 00000 000000 0000000000 000000000 0000000000 000000000 SEP 00000 1111100000 (cont.) JULY JULY 00000000000 00000000000 cns fil Bathylagus ochotensis JUNE pacii 00000 11111100000 thylagus OW800001400H000000H00000000880 MAY 0040ww040ww000w000ww00000000 B 8 APR 70008M0800080000V 111111101111000N000N000N MAR MAR 208 400 FEB. FEB 73901000111 000 0000 0000 00000 0000000000 IAN 0100000001110000111000010000 1000000000 655.0 660.0 770.0 755.0 650.0 61.0 STATION STATION 60.0 67.0 67.0 773.0 773.0 777.0 880.0 880.0 

00000 0000

00

000

000

0

TABLE 4. (cont.)

	DEC.	0.0		DEC.	1 1	1	1 1	ı	1 1	1	ı	1 1	ı	1 1	ı	0.0	0.0	1	1	ıı	0.0	0.0	0.0	0.0	1	0.0	1	10	0.0
	NOV.	0.0		NOV.	1 1	t ·	1 1	ı	1 1	1	ı	1 1	1	ιı	ŧ	0.0	48.1	1	1	1 1	0.0	0.0	0.0	0,0	1	1 1	1	2 1 0	0.0
	oc.r.	0.0		OCT.	0.0	0.0	0.1	1	0.0	0.0	ı	1 1	1	0.0	1	0.0	2.5	0.0	0.0	1 9	0.0	0.0	0.0	0	1	8.4		10	96.
	SEP.	0.0		SEP.	1 1	ı	1 1	ı	1 1	1	t	1	t t	1 1	1	1 1	1 1	ı	1 1	ı	0.0	0.0	0.0	11.1	10.9	2.5	٥ ١ ٥	1 4	16.6
•	AUG.	0.0		AUG.	1 1	ł	t I	ı	ı	9.1	3.3	i	0.0	0.0	ı	0.0	000	2.0	0.0	0.0	3.0	3.1	12.0	12.6	7.8	0.0	1 1	1 4	000
(cont.	JULY	0.0	hi	JULY	3.3	0.0	000	90.	0.0	0.0	0.0	ı	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	12.2	000	0.0	0.0	1 1	10	000
ficus	JUNE	0.0	s wesethi	JUNE	1 1	ı	1 1	1	0.0	000	0.0	ı	6,8	9.0	0.0	2.9	0.00	0.00	2.8 6.1	0.0	0.0	19.8	0.0	0.0	0 1	1	1 1	1 9	000
us pac	MAY	0.0	Bathylagus	MAX	0.0	11.2	0.9	0.0	3.2	2.0	0.0	18.4	n 0	N. I	2.9	0.0	000	000	0.0	0.0	v 0 v 0	0.0	3.0	0.0		2,0	2 2 2	2.8	000
Bathylagus pacificus	APR.	0.0	Bat	APR.	10	5.6	0.0	1 1	0.0	0	0.0	ı	0,0	0.0	0.0	15.9	000	0.00	0.0	6.0	2°8 7°8	0.0	5.8	8 c	0 0	2.8	1 1	1 0	0008
B	MAR.	0.0																											
	Σ	10		MAR	1 1	1	1 3	1 1	1	1 1	I	ı	1 1	ı	1	10	0	1 1	1 1	ı	0.0	0.0	0.0	1 9	0 1	0.0	1 1	1 0	3.1
	FEB. M	3.2		FEB. MAE		1	0.0	1 1	1	-	1	1	1 1	- 0.0	1 1		0	0.0	- 0-0	1	0.0	0.0	0.0 0.0	1 0	0°0 C°T	0.0 0.0	1 1	1 0	0.0
		0.0				0.0	0.0 0.0	1 1	1		,	1	1 1	- 0.0 0.0	1 1	10	0.0	0.0	0.0		0.0 0.0 0.0	0.0 0.0	0.0	1	0.0	0 0	1 1	1 0	⊃m 1
	FEB.	3.2		FEB.	0.08	0.06	70.0	75.0 7	80.0	85.0	85.0		145.0	70.0 0.0	85.0	0.0 0.0	0.0 0.0	70.0	75.0	85.0	0.0 0.0 0.08	60.0 - 0.0	70.0 - 0.0 0.	75.0	85.0	.0 0.0 - 0.06	130.0	145.0	⊃m 1

	DEC.	0.0.00
	NOV.	0.0
	ocr.	# 7 0000 0 0 00000000000000000000000000
	SEP.	2 1   2 4   2 4000001
	AUG.	000001   100000000000000000000000000000
(cont.)	JULY	800041 00 881000000004444 1 8000 1 1 80000000000
	JUNE	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Bathylagus wesethi	MAY	00000 1 1 00000 0000 0000 0000 0000 00
Bathyle	APR.	020001100120800000000000000000000000000
	MAR.	m o o oooo ooooooooooooooooooooooooooo
	FEB.	
	JAN.	0.0000000000000000000000000000000000000
	STATION	33.0 33.0 33.0 33.0 33.0 33.0 33.0 33.0 100.0 485.0
	ST	10000000000000000000000000000000000000

TABLE 4. (cont.)

ARY APR					Bathyla	ylagus wesethi	sethi	(cont.)					
		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
	0.	0.0			0.0	0.0		0.0	6.4	1	1	ı	1
	0.	0.0			0.0	0.0		5.0	0.0	1	0 " 0	1	I
	0.	0.0	l		0.0	0.0		2.8		1	0.0	I	1
	0	1 0	1		0.0	0.0		0.0		ı	) (	I	ı
	0.0	7 - 4	I		0.0	0.0		2.0		1	3.0	1	ı
	0.0				0.0	000		70		0		ı	ı
	0 0				0.0	7.7						1	ı
	0.0				0.0	0.0		0.0				ı	ı
	0.		۰		0.0	0.0		0.0		l		l	1
	0.		0		0.0	0.0		0.0		ı		1	1
	0.				0.0	0.0		0.0		ł		ı	ı
	0.		0		0.0	0.0		2.6	- 0	ı		ı	1
	0.				0.0	0.0		2.7		1		ı	1
	0	,			0.0	0.0	- 1	18.1		1	1	ı	I
	0.0							9.6	1	1		i	1
	000		0		0			1				1	1
								0	0			1	1
	0.		0		0.0	0.0		0.0		0		ı	l
	0.		0		7.00	0.0		17.7				ŧ	1
	0.		0		0.0	0.0		7.8		ı		1	1
	0.		. 0		2.6	0.0		2.7		ł		1	(
	0.				0.0	0.0		0.0		1		1	1
	0				2.1	0.0		0.6		1	1	}	1
	0	- 0			0.0	0.0		0.0	19.5	ı	0.0	1	I
								3.5		1		1	1
			ı					200		ŀ	3.0	ı	ı
								000		ı		1	ı
				1				1				1	1
	0.0					0		0					
	0.0				2.2	0.0		0.0	200	0.0	0.0	ı	ı
	0.	٠	٠		19.4	0.0		6.7				ı	I
	0.				0.0	0.0		2.7		1		1	1
	0.				0.0	0.0		0.0		ı		ı	1
	0.	1	- 4		0.0	0.0		0.0		1	ı	ŧ	I
	0		- 1		0.0	0.0		0.0		1	0.0	ı	1
	_							0		1		ı	1
													1
	0.0				0.0	0.0		0.0	0				
	0.				0.0	0.0		0.0		0.0		ı	I
	0.				0.0	0.0		0.0		1		l	ı
	0.		ō		0.0	0.0		0.0		1		1	F
	0		- 4		0.0	0.0		0.0		1		ı	ı
	0				0.0	0.0		0.0		1	2.9	ı	1
	0				1	1		1	1		1	ı	1
	0				1	0.0		0.0		0.0		1	ı
	0	,			ı			0				ı	1
0.0 0.0 0.0 0.0 0.0 0.0	0				1	0.0		7.5	0	ı	2.5	ı	١
	0	0			1				4	0		i	1
	0 0	0			ı	2.0			۰			ł	1
	0			۰		1 . 7	۰	•					

	DEC.		DEC.	1 1	1	1 1	1	1 1	ı	ı	1 1	ı	ı	1 1	1	ı	1 1	1	ı	ı	1	I	1 1	1	1	ŧ
	NOV.	11111111	NOV.	1 1	1 1	1 1	1	1 1	ı	1 1	1 1		ı	1 1	ı	i	) [	ı	ı	1	1	ŧ	l f	1	ı	I
	ocr.	000000000000000000000000000000000000000	OCT.	0.0	0.0	0.0	0.0	0.0	i	0.0	0.0	0.0	1 0	0.1	0.0	0.0		) ) )	0.0	1	0.0	0.0	0.0	0.0	1 0	0.0
	SEP.	11111111	SEP.	1-1	1	1 1	ı	1 1	1	1 1	1 (	1	ı		1	ı	1 1	ı	1	1	ı	ı		1	1	ı
	AUG.	00.00	AUG.	1 1	1 1	1 1	1	1 1	I	1 1	1	1 1	1	1 1	ı	ł	1 1	ı	ı	ı	ŀ	1	1 1	1	ı	1
(cont.)	JULY	2.9 0.0 0.0 0.0 0.0 2.6 -	JULY	0.00	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0		3.1	0.0	0.0	0.0	3°T	0.0	3.1	(	0.0
sethi	JUNE	5.5 0.0 2.8 2.9 0.0 0.0 2.9	JUNE	1 1	1 1	1 1	ı	1 1	1	1 1	1	1	I	1 1	1	ı	l 1	ı	1	ŀ	ł	ı	l 1	1	ı	ı
Bathylagus wesethi	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 Leuroglossus	MAY	28.3	12.1	0.0	0.0	0.0	18.3	0.0	6.1	10.3	12.5	0.0	3.0	0.0	18.5		1	21.9	10.2	0.0	16.0	0.0		0.0
Bathyl	APR.	0.0 0.0 1	APR.	0.0		43.2		1 1	1			16.4	ı	1 1	1	46.4	74.0	126.8	34.2	ı		0.0	45.3	8.4	1 4	8.7
	MAR.	0001110111	MAR.	1 1	1 1	1 1	ı	1 1	1,	1 1	ı	1 1	ŀ		1	ı		1	1	ı	ı	-		1	ı	ı
	FEB.	0.0000000000000000000000000000000000000	FEB.	1 1	t I	1 1	1	1 1	ı	1 1	I	ì	ı	1 1	1	ı	1 1	- 1	ı	1	1	1 0	43.6	25.0	24.2	i.
	JAN.	30000	JAN.	0.0	0.0	0 1	0.0	0.0	1		0.0	2 8 9		3.0	1		0.0		0.0			0.0	0	8 . 4		48.2
	NC	55.0 60.0 70.0 70.0 40.0 16.0	NC	55.	70.		60.	70.	75.	90.	50.	60.	65.	70.	80.	52.	22.0	920	70.	75.	80.	90°	51.	55.	57.	60.
	STATION	127.0 127.0 127.0 130.0 133.0 153.0	STATION	60.09	60.09	63.0	63.0	63.0	63.0	63.0	67.0	67.0	67.0	67.0	67.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	73.0	73.0	73.0	73.0

TABLE 4. (cont.)

Leuroglossus stilbius (cont.)

1	DEC.	ı	ı	ı	ı	ı	0.0	0.0		0			0.0	ı	1	ı	i	1	0.0	0.0	1	0.0	ı	0.0	1	1	ı	ı	ı	0.0	0.0	0.0	0.0	0.0	0.0	I	ŀ	ı	ı	1	0.0	0.0	0.0	000	000	1	1	
	NOV.	i	ı	ı	ł	ı	0.0		) ) ) 	0	0 1		0.0	1	ı	ı	ı	ı	0.0	0.0	1	0.0	ł	0.0	,	1	1	ı	ı	0.0	0.0	0.0	0.0	0.0	0.0	ı	ı	ı	ı	1	0.0	0.0	0.0			) ) 	ı	
	OCT.	1	0		0			0.0	) ) ) )	0			0.0	1 (	0.0	1	0.0	0.0	ı	0.0	ı	0.0	1	0.0		0	0 1	0.0		0.0	0.0	0.0	0.0	0.0	0.0	1 :	0.0	1 4	0.0	1	0.0	0.0	0.0			) ) 	0.0	
	SEP.	1	ı	ı	ı	1	ı	1	1	ı	1	ı	1	ı	ı	ı	ı	ı	1	ŀ	ı	i	i	1	ı	1	1	ı	í	ı	ı	ı	1	1	ı	1	ı	1	ı	1	ı	ı	\$	1 1	ı I	1	ı	
,	AUG.	1	ı	ı	ı	0.0	• 1	0.0	) ) ) )	0	0.0	1	1	ı	ı	ı	ı	0.0	1	0.0	1	0.0	1	0.0	0.0			0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 -	2.3	1	0.0	0.0	0.0	0.0		0.0	0.0	
10011	JULY	12 3	10.7	10	, ,	, ,		0.0		0			0.0	0.0	0.0	3.2	0.0	0.0	1	6.4	1	7.0	0.0	0.0	2.8		3.5	0	) ) ) 	0.0	0.0	0.0	0.0	0.0	0.0	5.7	7.1	2.9	0.0	0.0	0.0	0.0	0.0	0.0	10.0	6.3	0.0	
entatt	JUNE		1		. 1	0		0.0	. 1	0	0,0	200	0.0	1	3.7	0.0	2.9	2.7	1	18.2	1	34.1	8.6		0 0			2.0	)	2.4	0.0	3.0	2.5	12.8	14.9	8.9	11.5	12.3	2.9	6.1	0.0	0.0	0.0	0.0	0.0	26.7	0.0	
Sous of	MAY	2 A	100	7.77	, ,	200	9 1	ı	ı	נונ	11:17	0.00	26.8	8.9	6.4	2.8	5.7	11.8	1	142.3	1	103.4	16.3	13.0	5.7	A 1 1	20.0	8.9	3.1	30.0	0.0	2.6	2.4	2.8	30.3	62.0	55.0	2.7	0.0	5.9	5.6	2.8	15.1	ນໍ້ເ	1771	20.5	13.6	
orkorna	APR.	11 6	N . N .	14 1 24 1	0	0 00		45.0	C . I	0 16	9.0	0.0	0.0	ı	0.0	1	0.0	15.5	1	252.0		38.0	15.3		2.0		000	0 0	i i	2 2	1.6	0.9	41.0	32.5	17.1	11.3	0.0	8.3	3.0	0.0	0.9	0.9	33.5	10.3	4.0	51.3	0.0	
ĭ	MAR.				1 1	1	1 1	1 (			i	i	ı	ı	1	1	I	1	ı	ı	ı	ı	1	ı	ı	1	1	1	ı	1	0.0	40.8	1	1	ı	١	ı	ı	1	ı	23.5	3.0	74.2	10.0	1 1	- 1	1	
	FEB.		,	3.2	1	2 6	75.6	220.0	2000	0,0	3.3	1 1	0.0	ı	1	ı	1	1	117.8	416.7	236.1	50.5		0		0 0	ر ب ر د د	0		ר אר	39.1	149.8	641.8	145.4	30.5	ı	177.6	ı	0.0	ı	8.6	63.0	L	93.9	28.5	F . 0 1	16.7	
	JAN.			0.0	1	0	0.0	120 2	129.3	000	18.6		0.0	ı	ı	ı	ı	36.3	) ) )	33.1	1	7.5	)	0		0	0.1	0	•	9 09	200	22.6	9.1	40.7	0.0	1	0.0	1	0.0	ı	0.0	27.0	1.0	0.0	3.2	1	1	
	N		0000	70.0	0.50	0000	20.0	03.0	0000	0.70	60.0	0.59	70.0	75.0	80.0	85.0	0.00	52.0	53.0	75.0	57.0	0.09	65.0	20.02	75.0	0.00	000	0.00	110.0	27.0	40.0	43.0	51.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	35.0	40.0	45.0	50.0	0.00	22.0	70.0	
	STATION	10	13.0	13.0	73.0	13.0	1/00	1/00	0.77	0.//	0.77	77.0	77.0	77.0	77.0	77.0	77.0	80.0	80.0	80.0	80.0	80.0	0.00	000	000	000	000	000	800	000	200	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	87.0	87.0	87.0	87.0	0.78	87.0	87.0	

	DEC.	000000000000000000000000000000000000000
	NOV.	0.000 1 4 1 0.000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	OCT.	
	SEP.	110000000000000000000000000000000000000
_	AUG.	
(cont.)	JULY	000000000000000000000000000000000000000
Ibius	JUNE	
Leuroglossus stilbius	MAY	11
uroglos	APR.	222200 222200 222200 222200 222200 222000 222000 222000 222000 22200 22200 22200 22200 22200
Lei	MAR.	
	FEB.	10960W/0010110000WW8111000000000000000000000
	JAN.	081000 000000 000000 000000000000000000
	NC	20000000000000000000000000000000000000
	STATION	98877 999999999999999999999999999999999

TABLE 4. (cont.)

	DEC.		DEC.	
	NOV.		NOV.	1133111111111
	OCT.	00000 000000000000000000000000000000000	OCT.	000000000000000000000000000000000000000
	SEP.	000 00000 1001001001	SEP.	0.
	AUG.	000000000000000000000000000000000000000	AUG.	0.0000000000000000000000000000000000000
(cont.	JULY	000000000000000000000000000000000000000	JULY	0 000000000
Ipins	JUNE	111.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JUNE	0 000000000
sus st	MAY	38.8 0.0 2.9 5.4 0.0 5.4 0.0 5.4 0.0 2.7 0.0 0.0 0.0 0.0	MAY	100000000000000000000000000000000000000
Leuroglossus stil	APR.	2 7 . 1 2 6 . 7 0 0 . 0 0 0	APR.	0.0000000000000000000000000000000000000
re	MAR.		MAR.	0 000000
	FEB.	000000000000000000000000000000000000000	FEB.	0 00 00000
	JAN.	00 00 000000000 000000	JAN.	00000000
	T P	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7	90.0 175.0 175.0 50.0 90.0 70.0 60.0 60.0 550.0
	STATION	1113.0 11133.0 11133.0 11133.0 11133.0 11220.0 11220.0 11227.0 1127.0 1127.0	STATION	50.0 87.0 97.0 100.0 100.0 120.0 120.0 130.0 137.0

NO												
80	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DBC.
9				1	ı	ι		1	1	17.6	1	1
60.	0.0	1	ı	0.0	0.0	ı		1	ı	1.9	I	ţ
90.	0.0	ı	ł	11.4		ı		ı	ı	0.0	ι	I
90.	0.0	ł	ı	3.0	1 6	ı	0.0	ı	ı	5.2	1	I
75.	ı	ı	1	ł		ı		l	1	I	ı	1
82		1	ı	1 4		ı		I	I	1 9	ı	ł
70.	0.0	0.0	ı	0.0		ı		ı	ı	0.0	I	ı
75.	1	ł	ı			ı		ı	I	1 0	ı	I
80.	1	1	ı	0.0				ŧ	1	0.0	I	I
65,	1	i	1	22.7		0.0		1	ı	ı	ı	ı
85.	1	ı	ı	1				ı	1	ı	ı	I
100.	I	ı	ı	1		1	1	ı	1	ı	ŧ	ı
110.	Į	1	ŀ	ı		1	1	ı	ı	ı	1	ı
120	1	1	ı	1		1	1	ı	1	1	ı	1
60	0.0	0.0	1	0.0				0.0	1	0.0	0.0	0.0
65	1	1	1					0.0	1	ι	ı	ı
70.	0.0	1,2	1					0.0	ı	0.0	ı	ı
85.			ı					ı	1		1	ı
90	0.0	0.0	1				0.0		1	0.0	1	
50.	0.0		0.0						ı		2.5	0.0
60.	ı	0.0	1						ı		0.0	
70.	1		1						ı		1	ı
75.	1		1	0.0					I		ı	I
80.	ŀ	0.0	ı			۰			ı	0.0	ı	I
85.	ı		I	0					ı		ı	I
90.	ı	0.0								0.0	1 0	
60.	ı		0.0		12.8	4.0				0.0	0.0	0.0
65.	ı					0				1 0	1 4	1 0
.07	1	0.0								0	0.0	0.0
000	ı							0		0	0	
300	ı	0.0	0.0							0	0.1	) ) )
000	l 1	ا ر- ب	7	0 4		1	, ,	0.0	200	0.0	1	2.9
000	ı			0		ı		0		)	ı	0.0
110	1	ı	١	ı		ı	1	1		1	1	1
120	ı	1	ı	ı		t	1	ı		1	1	1
130	1	ı	1	ı		ı	1	1		1	1	ı
145	1	1	1	ı		1	1	1	1	1	ł	ŧ
45						-		0.0	- 6			0.0
50.	9 . 0											0.0
55.	0.0	0.0	0.0	0.0	2.4					0.0	0.0	0.0
.09		0										0.0
65.	ı	ı			0.0					1	1 (	1 (
93.0 70.0	5.0	1	0.0	14.1	3.0	0.0	0.0	e e	0.0	0.0	2.9	2.9
75.	I	1		2.9	6.1						1 0	1 0
80.	8.3	2.7	0.0	11.4	5.4					0.0	0.0	3.0

	DEC.	50   100
	NOV.	
	OCT.	20000000000000000000000000000000000000
	SEP.	86632 86332
	AUG.	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
ont.)	אחמר	W0 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Cyclothone spp. (cont.)	JUNE	00000000000000000000000000000000000000
thone s	MAY	
Cyclo	APR.	100 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	MAR.	1
	FEB.	10000000000000000000000000000000000000
	JAN.	1 8 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		110000 1110000 1110000 1110000 1110000 11000000
	STATION	00000000000000000000000000000000000000

	DEC.	
	NOV.	
	ocr.	14 100000000000000000000000000000000000
	SEP.	1.50 1.00 1.00 1.00 1.00 1.00 1.00 1.00
	AUG.	27.3 27.3 87.4 172.5 172.5 172.6 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10
nt.)	JULY	00000000000000000000000000000000000000
Cyclothone spp. (cont.)	JUNE	000000000000000000000000000000000000000
Shone s	MAY	
Cyclo	APR.	0.000000000000000000000000000000000000
	MAR.	
	FEB.	10000000000000000000000000000000000000
	JAN.	10000000000000000000000000000000000000
	STATION	10070 10

TABLE 4. (cont.)

	DEC.	1 1	1 1	1 1	1	-	1 1	1	ı	1 1	1	ı	1 1	1	ı	1 1	1 1	ı	1 1	1	1	ı	1 1	1	1 (	1 1	ı	ı	1 1	1	ı	1 1	ł	1 1	
	NOV.	1 1	1 1	1 1	1	t	1 1	1	ı	1 1	1	1	1 1	1	ı	1 1	1 1	1	1 1	1 1	1	ı	1 1	1	1 1	1 1	1	I	1 1	1	ı	1 1	ι	1 1	
	OCT.	10.8	5.5	2 0	) • •	0.0	000	0.0	0.0	22.01		0.0	80	2.8	1 1		0.0	0.0	0.0	0.0	1 (	2.8	0.0	0.0	<b>₩</b> 0	0.1	5.4	0.0	0.0	000	0.0	0.0	0.0	1 1	
	SEP.	1 1	1 1	1 1	1.8	0.0	0.0	)	ŧ	1 1	1	5.1	l I	1	1	10	0.0	2.9	į	1 1	ı	ı	i I	ı	1	H	1	0.0	1	1 1	1	1 1	ı	1 1	
	AUG.	3.3	40.2	1 1	1	0.0	0.1	0.0	0.0	5.0	· 1	0.0	2.0	200	12.4	7.2	3.4	5.3	0.1	2.8	1.2	0.0	1°1	1.7	6.1	7.0	0.0	1 0	0.0	2	0.0	1 (	F	1	
ont.)	JULY	000	11.3	5.1		0.0	0.0	0.0	0.0	0.0	· 1	0.0	11.2	11.6	35.0	41.9	0.0	0.0	0.0	10.8	2.9	2.5	0.0	0.0	0.0	) r	22.6	0.0	0.0	14.3	5.1	2.9	2.7	11.4	1.7
pp. (cc	JUNE	17.9	000	0.0	•	0.0	0.0	0.0	200	000	9 1	13.2	77.8	10.6	2.8	0.0	000	2.8	0.0	3.0	5.7	2.0	000	0.0	1	1 1	ı	0.0	0.0	0.0	1	1 1	1	1	ı
Cyclothone spp. (cont.)	MAX	5.6	2.6	m c	0 1	0.0	טוס היי	20.0	ru r œ r	ى م م	) ) 	0.0	2.7	0.0	0.0	800	200	0.0	0.0	8.0	1		000		1	1 1	ı	0.0	0.0	27.0	1	1 1	1	1	ı
Cyclo	APR.	10.2	0.0	0.0	•	1	1 1	1	ı		. 1	1	1 1	1	ı	1 9		2.9	0.0	0.0	ı	1 0	000	0.0	0.0	C - 7	1	0.0	2.7	000	0.0	0.0	0.0	1 0	0.0
	MAR.	2.8	0.0	1 0	•	0.0		0.0	3.0	0.0	ı	0.0	0.0	0.0	1	10	5.7	5.6	0.0	000	1		. r.	0	ı	1 1	1	0.0	0.0	200	1	1 1	I I	1	ı
	FEB.	0.0	0.0	1 0		0.0	1.4 0.0	0.0	0.0	0.0	1	0.0	0.0	000	1	10		0.0	0.0	2.7	1	1 0	000	0.0	ı	1 1	ı	2.7	0.0	000	1	1 1	1	1	i
	JAN.	2.7	7.7	0 1		0.0	4.0	) ) )	1 0	2.5	2.6	2.3	0.0	0.0	1	0.0		0.0	0.0	0.0	1	1 (	000	0.0	0.0	0.0	ı			0.0	0.0	0.0	2.2	10	C • Z
	N	65.0	80.0	85.0	26.0	37.0	42.0	50.0	55.0	60.0	80.0	45.0	50.0	00.09	65.0	70.0	40.0	45.0	50.0	0.09	65.0	70.0	40.0	50.0	55.0	65.0	70.0	30.0	40.0	50.0	55.0	60.0	70.0	75.0	0.00
	STATION	120.0	120.0	120.0	120.7	123.0	123.0	123.0	123.0	123.0	123.0	127.0	127.0	127.0	127.0	127.0	130.0	130.0	130.0	130.0	130.0	130.0	133.0	133.0	133.0	133.0	133.0	137.0	137.0	137.0	137.0	137.0	137.0	137.0	0./61

TABLE 4. (cont.)

	DEC.	11111111111	DEC.	
	NOV.	1111111111111	NOV.	
	ocr.	111111111111	OCT.	00000140110110000001111111111
	SEP.	11111111111	SEP.	0.
	AUG.	0.148222234660 0.1482000226660	AUG.	2 x x x x x x x x x x x x x x x x x x x
ont.)	JULY	1   1   1   1   1   1   1   1   1   1	JULY	0.0000000000000000000000000000000000000
Cyclothone spp. (cont.)	JUNE	taenia	JUNE	000000000000000000000000000000000000000
thone s	MAY	- - - - - - Diplophos	MAY	000000000000000000000000000000000000000
Cyclo	APR.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	APR.	000000000000000000000000000000000000000
	MAR.	111111111111	MAR.	0000 00 0 0 000 0
	FEB.	11:11:11:11:1	FEB.	000111001010100018111111111
	JAN.	30000000000000000000000000000000000000	JAN.	000000000000000000000000000000000000000
	STATION	140.0 140.0 143.0 143.0 143.0 147.0 147.0 147.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0 150.0	STATION	103.0 107.0 10

TABLE 4. (cont.)

	DEC.	11111		DEC.	1000	
	NOV.	1111		NOV.	00 0	
	OCT.	1111		OCT.		•
	SEP.	11111		SEP.	0.00	
	AUG.	11.1 0.0 2.0 11.3		AUG.		•
(cont.)	JULY	1111	p.	JULY		•
	JUNE	1111	Ichthyococcus spp.	JUNE		•
Diplophos taenia	MAY	11111	thyoco	MAY		0
Diplop	APR.	11111	ICL	APR.	000000000000000000000000000000000000000	
	MAR.			MAR.	0000 0000000000000000000000000000000000	
	FEB.	\$ 1 1 1 1		FEB.		•
	JAN.	3.7		JAN.		
	NC	45.0 50.0 60.0 25.0 70.0		NIC	0800808480808648080808086808080808080808	#
	STATION	150.0 150.0 150.0 153.0		STATION	8833 8877 9877 1000	131.0

TABLE 4. (cont.)

TABLE 4. (cont.)

	DEC.	0.0	0.0	2.9	4.8	8.1	1 6	2.9	110		5.7	105.7	I	ı	ı	ı	1 1	1	1	ı	ŧ	I	ı	ı	1 1		ı	I	1	I	l	1	1 1	ı	1	ı	ı	ı	ı	1	i	l
	NOV.	12.4	0.0	2.8	3.1	6.3	1 0	0.0	2	) ) )	ı	ı	ı	ı	1	1	}	1	ı	ı	ı	1	ı	i	1 1	ı f	ı	ł	ı	ı	ı	1	1 1	ł	ı	1	1	ı	ı	ı	ı	i
	OCT.	0.0	11.1	2.5	6.1	11.5	1 1	4. CA1	N 210	F . O T 7	ı	ı	1	ı	10.4	43.7	190.4	52°,	25.4	5.9	9.7	1	48.8	100	113.1	336.6	50.00	3.0	3.0	259.4	174.5	139.6	106.0	T	59.8	1	37.4	ı	286.7	2.9	7.7	0.0
	SEP.	0.0	0.0	5.4	2.8	228.8	322.9	150.2	2.17	245.8	173.3	125.5	495.0	120.1	ı	I	i	1	ı	i	1	1	ı	ı	1	1 1	ı	1	ı	ı	ł	ı	1 1	ı	1	1	1	1	ı	ı	ı	I
(	AUG.	0.0	7.9	26.6	12.1	1.6	0.0	13.1	24°T	1006.7	399.3		1	1	0.0	ທີ່ເ	, , ,	000								447.0					73.2	2/8.5	176.0	102 4	179.8	202.9	212.3	119.3	427.0	ţ	9.0	T • 2
(cont.	JULY	0.0		0.0	0.0	0.0	2.0	18	- 0	٧C	65.5	- 1	ı	ł	0.0	0.0	0.0	•		) ) ) )	8.5	8.9	279.9	625.7	2,075	261.3	0.0	0.0	0.0	0.0	ລ ເ	7.00	100.4		-		61.4			ı	ı	ı
cetia	JUNE	0	000	0 0		0			0	0	0 (	1	ı	ı	_	-						-				5.2													146.0		4.0	
rria lu	MAY		00							0			1	ı	0.0	0.0	000		000	0.0	2.9	25.6	23.5	21.6	30.7	31.0	0.0	0.0	6.1	0.0	0.6	70.4	51.8 L 7.7	27.0	24.6	51.3	89.0	50.3	56.3		0.0	0
Vinciguerria lucetia	APR.	1 .	000								0 4		1	ı		0.0	0	0		) ) ) )						000													5.7	1 1	0.0	0.0
Α	MAR.	1 .	000					2.3	1 1		4.6		ı	ı	0.0	0.0	0.0	0.0	o ra	3.5	0.0	ı	1	ı	ı	ł	0.0	0.0	0.0	20.8	12.3	5.1	4.1	0.7	1	ı	1	1	ı		2.5	
	FEB.	0.0	0.0	0.0	0.0	0.0	ı	1	1 5	C - T 7	3.0	) ) )	1	ı	0.0	0.0	0.0		000	0.0	0.0	ı	7.9	1 0	73.5	10.4	0.0	0.0	0.0	2.1	0.0	0.0	0.0	٥٠١	14.9		13.2	1	9.6	1	0.0	7.3
	JAN.	0.0	0.0	0.0	0.0	0.0		7.4	1 1	0.12	7.90	1	ı	1	0.0	0.0	0.0		30.0	0.11	32.3	1	4.9	1 4	1.co	19.8		0.0	0.0	1	0.0	0.0	1 0	0.1	70.5		2.7	1	10.8	1 4	0.0	5.3
		35.0	40.0	50.0	55.0	0.09	65.0	70.0	0.00	000	0.00	100.0	110.0	120.0	30.0	32.0	35.0	40.0	0.0	55.0	0.09	65.0	70.0	75.0	80.0	0000	29.0	30.0	35.0	40.0	45.0	50.0	0.00	65.0	70.0	75.0	80.0	85.0	90.0	50.0	30.0	35.0
	STATION		93.0																																							

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	DEC.		l
	MOV.		1
	OCT.	111 11 169:28 110 169:28 110 17 6 17 6 17 6 17 6 17 6 17 6 17 6	24.3
	SEP.	11.6	I
,	AUG.	11.294.7 11.294.7 11.294.7 11.294.7 11.294.7 11.294.7 11.294.7 12.20.7	
(come	JULY	185.0 185.0 187.0 187.0 187.0 187.0 10.0	32.
דמרברדמ	JUNE	2000 2000	62.0
אמבדדבה ה	MAY	22943.56 22000 234343.66 23434	19.9
TITTA	APR.	2.5	102.9
	MAR.	29.8 11.5 11.5 11.5 12.2 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5	0
	FEB.	25.2 26.3 27.3	
	JAN.	25.5 26.4 26.4 26.5 27.6 20.0	27.9
	NC	44 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	70.0
	STATION	10000000000000000000000000000000000000	113.0

TABLE 4. (cont.)

	DEC.		
	MOV.		
	OCT.	374.5 374.5 374.5 10.00	
	SEP.		
(	AUG.	1239.1 1688.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	
(cont.	JULY	11000 120000 12000 12000 12000 12000 12000 12000 12000 12000 1200000 12	
lucetia	JUNE	186.2 183.7 183.7 183.7 186.2 186.2 186.2 193.2 193.4 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	
	MAY	26.1 26.1 33.0 34.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
Vinciguerria	APR.	116.5 106.2 106.2 106.2 106.2 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	
1	MAR.	17.6 17.6 17.6 10.0	
	FEB.	22 24 26 26 26 26 26 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	
	JAN.	32.0 44.8 44.8 111.1 139.4 139.4 139.4 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	
	STATION	113   0   0   0   0   0   0   0   0   0	

	DEC.	
	NOV.	131111111111111111111111111111111111111
	OCT.	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	SEP.	27.0 1.8.7 27.9 27.9 1.4.3 11.6 11.6 11.2 11.2 11.2 11.2 11.2 11.3 11.4 11.6 11.6 11.6 11.6 11.6
_	AUG.	27.8 27.8 20.0 20.0 20.0 20.0 20.0 20.0 35.7 2284.3 171.6 11.4.4 11.4.4 11.4.4 11.4.4 11.4.4 11.4.4 11.4.4 11.6.0 10.0 10.0 10.0 10.0 10.0 10.0 10
(cont.)	JULY	15.8 3.21.7 3.63.1 5.37.4 5.33.2 5.33.2 5.33.2 7.86.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
ucetia	JUNE	11025.9 11045.9 11025.9 11025.9 1222.7 1367.0 137.7 13
Vinciguerria lucetia	MAY	297.4 108.7 108.7 108.7 108.7 108.7 108.7 100.0 113.2 11
/incigu	APR.	100.00 100.00
	MAR.	11.2 2.7 2.7 3.6.2
	FEB.	13.9 1.5.0 1.5.0 1.7.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1
	JAN.	2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	N	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	STATION	100.0000000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	ı	1	Į	1 1	1 1	1	1	i	1	ı	ı	ı	ì	ı	1	1	1	I	ı	ı	ı	I	1	ł	1 1		ı	i	ı	i	1	ı	1	ı	1	l	1	ŀ	1 1		1	ı
	NOV.	1	ı	ı	1 1	1 (	ı	ı	i	1	ı	ı	ı	1 .	l	. 1	1	1	ı	ı	1	1	ł	ı	ı	1	1 1	1	ı	1	ı	1	ı	1	I	ı	ı	L	1	1 1		ı	ı
	OCT.	1	ı	ı	l I	1 (	ł	1	ı	1	ı	ı	ı	1	1	- 1	ı	ı	!	1	ı	ı	ı	ı	ı	1 1	1 1	ı	ı	1	ı	ı	ı	ı	1	ı	1	1	ı	1 1	1 1	ı	I
	SEP.	1	i	ı	1 1	i I	ı	1	ı	ı	ŧ	I	I	į.	1	1	ı	ı	1	i	I	1	I	ı	í	1	)	ı	I	ı	1	1	I	I	1	ı	I	I		1 1	1 1	1	ı
	AUG.	37.6	1.8	155.1	3.0	26.2	7.0	9.4	2.3	11.8	34.9	46.5	125.9	2000	7.677	28.3	46.1	91.3	63.6	177.7	34.9	4.4	15.6	141.2	183.2	23 0	AB 7	305.3	159.8	244.2	52.8	34.0	75.2	ı	I	1	ı	ı	ł	1	l I	1	ı
(cont.)	JULY	ı	1	ı	1	. 1	1	1	1	1	i	1	ı	1	ı	1	ı	1	ı	ı	ı	ı	I	ı	1	ı	1 1	1	ı	ı	1	ı	1	ţ	ı	ı	1	ı	I	1	1 1	1	1
Vinciguerria lucetia	JUNE	1	ı	ı	1 1	1	1	١	ı	ı	ı	ı	ı	1 .	ı	- 1	ı	1	1	ı	ŝ	I	I	ı	į	1	1	1	1	ı	1	I	1	î	ı	ļ	1	ı	I	1	1 1	1	ı
erria 1	MAY	1	ı	ı	1 (	1 1	ı	ı	ı	ı	ı	I	1	ŀ	1	1	1	1	1	1	I	1	ı	ı	I	1	1 1	ı	1	1	ŀ	I	ı	\$	1	I	1	ı	ı	1 1	1 1	1	ı
incigue	APR.	52.1	66.3	119.3	15.5	13.3	0.0	2.8	7.	8	4.	28.8	د	44 . I	,	145 1	100	0,0	43.7	252.8	9.89	9.1	74.9	i	ł	1	1 1	1	ı	ı	1	I	ı	ı	ı	ı	ı	ı	1	1	1	ı	ŧ
Λ	MAR.	B	ı	1	1	1 1	ı	ı	1	ı	ı	ı	ı	ı	ı	1 1	1	ı	ı	ı	ı	1	ı	1	ı	1 1	1	1	1	1	ı	ı	1	ı	ı	ı	ı	ı	ı		1 1	ı	ı
	FEB.	1	ı	1		1 1	1	1	ı	ı	ì	1	I	I	1		í	1	1	ı	1	I	1	1	ı	1	1 1	1	1	1	1	I	1	ı	1	ı	ì	1	I	1 1	1	ı	1
	JAN.	32.7	42.5	12.9	76.8	7.07	2A. R	16.1	31.6	10.4	25.1	34.1	28.1	6.5	1 9	1.8		30.1	6.5	10.3		29.4	8.0	2.3	0.0	0.0	18.1	21.0	5.6	24.0	12.0	5.0	45.6					17.6			713	6.4	2.5
	NO																																										20.0
	STATION	140.0	140.0	140.0	140.0	140°C	0.041	143.0	143.0	143.0	143.0	143.0	143.0	143.0	143.0	147.0	147 0	147.0	147.0	147.0	147.0	147.0	147.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	152.0	157.0	157.0	157.0

TABLE 4. (cont.)

	DEC.		1	1	1	1	1	1	ı	ı	ı		DEC.	1 0 0 000000 0000
														0 0 00000 0000
	NOV	1	í	ı	ı	ı	ı	1	ŧ	I	ı		NOV	0 0 00000 0000
	OCT.		1	ı	ı	1	1	ı	ı	ł	ı		OCT.	00000 800000 00000000000000000000000000
	SEP.	ŧ	1	1	ı	ı	1	ı	ı	1	ı		SEP.	11111110000000000000111111111
	AUG.	1	ı	ı	1	ı	ı	ı	ı	t	ı		AUG.	000000000000000000000000000000000000000
(cont.	JULY	i	1	ı	ı	1	1	1	1	ı	1	e	JULY	110000000000000000000000000000000000000
ncetia	JUNE		ı	ļ	i	I	ı	ı	1	1	ı	tychida	JUNE	110000000000000000000000000000000000000
erria I	MAY		1	1	1	ı	1	1	ŧ	ı	ı	Sternoptychidae	MAY	18000000000000000000000000000000000000
Vinciguerria lucetia	APR.		ı	1	ŧ	1	ı	ı	1	ı	ı	0.	APR.	
	MAR.		ı	1	ı	ı	1	ı	ı	ı	ı		MAR.	11/101110000001110000001110
	FEB.		1	1	1	1	1	1	1	1	ı		FEB.	1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	JAN.	6 9	2000	8.9	0 0	39.0	36.3	108.5	21.7	23.9	59.3		JAN.	110000000000000000000000000000000000000
	NC	25.0	30.02	37.0	40.0	45.0	50.0	55.0	60.0	70.0	80.0		NC	430.0 430.0 430.0 430.0 430.0 430.0 1110.0 110.0 110.0 110.0 110.0 110.0 110.0 110.0 110.0 110.
	STATION	157 0	157.0	157 0	157.0	157.0	157.0	157.0	157.0	157.0	157.0		STATION	88888800000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	WOOOOO     O   O   O   O   O   O   O   O
	SEP.	000000000000000000000000000000000000000
	AUG.	
ont.)	JULY	0,0000000000000000000000000000000000000
Sternoptychidae (cont.)	JUNE	000000000000000000000000000000000000000
ptych	MAY	70 000000000000000000000000000000000000
terno		000000000000000000000000000000000000000
S	APR.	NOOOONOONONOOOOOONOOONOOONOOOONOOOONOOOO
	MAR.	00 100 10 100 000 000 000 000 000 000 0
	FEB.	000000000000000000000000000000000000000
	JAN.	
	N	7.00 7.00
	STATION	11111111111111111111111111111111111111

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1	DEC.		ı	1	1	ŀ		ı	1		1	ł	ı	1	ı	ı	1	ı	1	ı			ł	1 0	0.0	1	1	1	0.0	0.0	1	0.0	ı	ı	i	1 0	0.0	1	ı	ı	1 0	0.0	ı	ı	ı	1 0	000	0.0	ı	
	NOV.		1	1.	1	1	1	1			ı	ı	ı	ı	1	1	-	ı	ı	ı			ı	1 0	0.0	1	1	1	0.0	2.2	1	0.0	ı	t	ı	1 4	0.0	ı	ı	t	1 1	2.8	ı	ı	1	1 0				
	OCT.		8.0	2.9	2.2	0.0	)	2 5	, ,	6.0	1 4	0.0	n°3	4.3	0.0	1	0.0			0 1	0	C = 7		0.0		•	1 -	0.0	0.0	0.0		3.7		1	ı	1 4	0.0	1	ı	1	0.0	0.0	1 4	2.9			0.0			
	SEP.		ŧ	ı	ı	1	1		1		í	ı	ı	1	1	1	ı	ł	ı	ı		ı	ŧ	1	1	i	i	ı	ı	ı	ı	ı	ı	1	ı	ı	ı	1	ı	ŧ	ı	ı	ı	ı	ı	1 9	0.0	000	0.0	
	AUG.		1	ı	1	ı	ı	1	1	l	ı	ı	ı	1	1	1	ı	1	1			ì	ı	1 1	2.5	ı	ı	ı	0.0	0.0		0.0			ı		0.0		ı	1	3.1	0.0	0.0	0.0	0.0	0.0	200	000	3.1	
77	JULY		1	ı	0.0	0.0	000		,	0.0	4.4	0.0	0.0	0.0	0.0	3.4						0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1	1	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	1	0.0	10		0.0	
Chauttodus macount	JUNE		ı	ı	1	ı	1			ļ	ı	ı	ı	ı	1	1	1	ŀ				ì	i	1	0.0	3.7	0.0	2.9	0.0	0.0	0.0	0.0	0.0	3.0	1	1	3.2	0.0	3.1	3.1	0.0	0.0	5.9	0.0	0.0	0.0	0.0		0.0	
gnnortn	MAY		ı	ı	0.0	7				0.0	0.0	0.0	0.0	0.0	2.7		0		A C	יי ע ריי ריי	•	0.0	3.4	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	6.3	0.0	3.1	2.9	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	2.8	2.9	0.0	0.0	
CIIA	APR.		ı	1	0 0			0	0.0	0.0		2.8				1	0	000	2					0.0			1	3.0	0.9	0.0	0.0	0.0	0.0	0.0	ı	ı	2.7	0.0	8.3	3.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	MAR.		ı	1	1	ı	1		I	I	ŧ	1	1	1	1	ı		-			ı	I	ı	ı	ı	ı	1	ı	ı	t	l	1	1	1	1	ı	I	1	ı	ŧ	1	ı	1	ı	I		0.0	0		
	FEB.		ı	ı	ı	ı	1		ı	1	ı	i	ı	1	ı	1		1		ı	1 0	0.0	1	3.2	0.0	ı	1	ı	0.0	0.0	t	0.0	0.0	ı	ı	1	0.0	1	ı	ı	0.0	0.0	1	1.5	1	0.0	0.0	0.0		
	JAN.		ı	ı	A C			0	0.0	0.0	l	3,3	0.0	0.0			0			0.0	1 0	0.0	ś	0.0	0.0	i	ı	ı	0.0	0.0	1	0.0	0.0	1	ı	1	0.0	ı	1	1	0.0	0.0	1	1	1	1 (	0.0	1 1	1	
			55.0	0.09	70.07	0.00	0.00	0.00	90.0	60.0	85.0	0.06	55.0	60.0	20.02	0.50	0.11	000	0.00	0.00	0.0	50.0	65.0	70.0	0.09	80.0	85.0	0.06	55.0	0.09	65.0	70.0	80.0	85.0	10.0	20.0	55.0	65.0	75.0	85.0	0.06	55.0	65.0	70.0	75.0	80.0	50.0	20.0	75.0	
	STATION	ł	0	0	0	0 0	00	0	0	0	0	0	c	0		0 0	50	50	0 0	0 0	0	0	0	0	0	0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	3.0	3.0	3.0	7.0	7.0	7.0	7.0	7.0	0.0	0.0	90.06	

TABLE 4. (cont.)

	DEC.	0.0	0.0		1 1	1 1	1		DEC.	1	1	1	1 1	ı	ı	1	1 1	3.0	ı i	1	0.0	2.9	0.0	ı	0.0	0.0	1 1	1	1 1
	NOV.	0.0	0.0	0.0	E I	1 1	ı		NOV.	ı	1 1	ı	1 1	1	F	1	1 1	0.0	1 1	1	0.0	0.0	0.0	1	0.0	ŀ	1 1	1	1 1
	OCT.	0.0	0.0	0.0	2 2 9	0.0	2.6		OCT.	2.0	0.0	2.9	2,0	N - N	1	10	0.0	0.0	1 1	1	0.0	0.0	0.0	1	2.8	1 1	9.0	0.00	0.0
	SEP.	2.6	0.0	0	1 1	1 1	ı		SEP.	ı	1 1	ı	1 1	1	ı	1	1	0.0	2.5						0.0	2.8	1 1	1	I I
	AUG.	0.0	3.0	0.0	0 0	0 0	0 0		AUG.	1	ŀ	i	1 !	. 1	1		0.0		1 1	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
(cont.)	JULY	0.0	0.0	3.4	0.0	0.0	0.0	omus	JULY	1 0	0.0	0.0	0.0		ı	1 0	0.0	0.0	1 1	ı	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0
	JUNE	0.0	0 0	0.0	0.0	0.0	0.0	antrostomus	JUNE	1	1 1	į	1 1	1	ı		2.8	0.0	1 1	ı	0.0	0.0	0.0	0.0	2,0	0.0	0.0	0.00	0.0
Chauliodus macouni	MAY	000	20.0	0.0	0.0	0.0	0.0	Idiacanthus	MAY	10	0.0	0.0	0.0	0 0	ر ش م	v c	0.0	0.0	2.9	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0
Chaulio	APR.	0.0	0.0	0.0		0 0		Idiac	APR.	10	0.0		0.0	0	ı		0.0		1 1	1								0.0	
	MAR.	0.0	0.0	0 0	0.0	2.6	0.0		MAR.	ı	1	ı	1 1	1	i	} [		0.0	E-I	1	0.0	0.0	0.0	ı	0.0	0.0	-	0.0	0
	FEB.	1.5		0.0					FEB.	1	1	ı	1 1	6.4	1		0.0		1 1		0.0		0	ı	0.0		0 (	0.0	0 0
	JAN.		0 0	0.0		0 0			JAN.	10	2.9	0.0	0.0	0 1	ı	1 1		0.0	1 1	ı	0.0	0.0	3.2	1	0.0	0.0	0.0	0.0	0.0
	7	80.0	55.0	80.0	70.0	50.0	0.09		7	0.06	0.06	70.0	0.00	57.0	120.0	145.0	0.06	45.0	120.0	130.0	30.0	45.0	55.0	75.0	80.0	0.06	35.0	50.0	70.0
	STATION	0.06	0000	93.0	97.0	107.0	113.0		STATION	50.0	0.09	63.0	63.0	80.0	80.0	80.0	87.0	0.06	0.06	90.0	93.0	93.0	03.0	93.0	93.0	93.0	100.0	100.0	100.0

TABLE 4. (cont.)

	DEC.	1111	DEC.		ı	0.0	1 1	0.0	1 1	1-1		DEC.	1 1	1 1	ı	ł	1		DEC.	1.1		DEC.	1 1
	NOV.	1 1, 1 1	NOV		ı	0.0	1 1	0.0	1 1	1-1		NOV.	1 1	1	1	ı	1 1		NOV.	1 1		NOV.	1 1
	OCT.	4.7 2.8 0.0 0.0	OCT		ı	0.0	1 1	0.0	20.0	0.0		OCT.	0.0	0 0	1	0.0	0.0		OCT.	0.0		OCT.	0.0
	SEP.	1111	SEP		ı	0.0	0.0	0.0	1 1	1 1		SEP.	1	1 1	ı	1	1		SEP.	1.1		SEP.	\$ E
E.)	AUG.	0.00	AUG		1	0.0	1 1	0.0	00	000		AUG.	1	1 1	1	0.0	0.0		AUG.	0.0		AUG.	
s (cont.)	JULY	0.0 0.0 0.0 0.0 0.0 2.7 0.0 2.9	A'IIII'		ı	0.0	1 1	0.0	0.0	000	°.	JULY	0.0	0 0		0.0	0.0	sno	JULY	2.5	er	JULY	3.8
ostomus	JUNE				ł	0.0	1 1	0.0	0.0	000	lus spi	JUNE	1	1 1	1	0.0	0.0	macropus	JUNE	0.0	trivent	JUNE	1 1
us antr	MAY	0.0 0.0 0.0 0.0 0.0 0.0	MAY	3.1	2.9	0.0	200	0.0	0.0	0.0	Bathophilus spp	MAY	0.0	0.0	20.00	0.0	0.0	Tactostoma	MAY	0.0	Stomias atriventer	MAY	0.0
Idiacanthus antrostomus	APR.	0.0	APR	1	ı	0.0	1 (	0.0	2.7	000	B	APR.	0.0	1 1	ı	0.0	00.0	Tac	APR.	0.0	Sto	APR.	0.0
Id	MAR.	0.0	MAR		ı	2.6	1	2.6	0.0	000		MAR.	1	l 1	1	1 0	000		MAR.			MAR.	 
	FEB.	0.0	FRR		ı	0.0		0.0	0.0	0.0		FEB.		l I	ı	0.0	2.5		FEB.	0.0		FEB.	
	JAN.	0000	NAT		1	1 1	1	0.0	0.0	5.4		JAN.	0.0	0.0	1	2.8	000		JAN.	0.0		JAN.	0.0
	STATION	100.0 90.0 103.0 60.0 103.0 90.0 117.0 80.0	NOT THE SEC	80.0 110.0	80.0 120.0	80.0 145.0 90.0 80.0	90.0 120.0	93.0 80.0	100.0 80.0	103.0 60.0		STATION	1				117.0 60.0		STATION	0.08 0.08		STATION	63.0 90.0 67.0 75.0

TABLE 4. (cont.)

	DEC.	
	NOV.	0000 0000 0 00 00
	OCT.	000000000000000000000000000000000000000
	SKP.	000000000000000000000000000000000000000
	AUG.	000000000000000000000000000000000000
(cont.)	JULY	mooooo   ooo waa oooo oooo ooo ooo ooo oooo o
enter	JUNE	000000000000000000000000000000000000000
Stomias atriventer	MAY	
Stomia	APR.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	MAR.	000000000000000000000000000000000000000
	FEB.	0.000000000000000000000000000000000000
	JAN.	1800701011111001700010010101010000000000
	N	77. 80.0000000000000000000000000000000000
	STATION	8833.0 8833.0 8833.0 8900.0 9900.0

	DEC.	
	NOV.	1,1111111111111111111111111111111111111
	OCT.	0000000 00000 0 000000 00000 000000 0000
	SEP.	00 0 0 0 0 0 000
	AUG.	00000000000000000000000000000000000000
(cont.)	JULY	
	JUNE	000000000000000000000000000000000000000
atrive	MAY	000000000000000000000000000000000000000
Stomias atriventer	APR.	1112270 112271 11233776 1113337770 12200 120000 12000
	MAR.	000000000000000000000000000000000000000
	FEB.	12.66 0.00 0.00 0.00 0.00 0.00 0.00 0.00
	JAN.	000 0000 0000 0000 0000 0000 0000 0000 0000
	STATION	00000000000000000000000000000000000000
	STA	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

TABLE 4. (cont.)

	DEC.		DEC.	1 1 1 1 1 1	DEC.	11111111111
	NOV.		NOV.	11111	NOV.	11111111111
	OCT.	000000800001111111	OCT.	2.7	OCT.	00000 00000
	SEP.	0.0111111111111111111111111111111111111	SEP.	11111	SEP.	1111111111
	AUG.	11002200000000000000000000000000000000	AUG.	0.0 0.0 0.0 3.0	AUG.	1111111111
(cont.)	JULY	800800000000000000000000000000000000000	JULY	22.7	JULY	1000 m m m m 0000
	JUNE	0.0 0.0 0.0 0.0 0.0	JUNE	0.0 0.0 0.0 0.0     	JUNE	11111111111
Stomias atriventer	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 10.1 0.0 10.1 0.0 Evermannellidae	MAY	0.0 0.0 - - Parale	MAY	00000000
Stomias	APR.	1000WVV100WV1000V11	APR.	0.0	APR.	0.0 0.0 0.0 0.1 11.4
	MAR.		MAR.	11111	MAR.	1111111111
	FEB.	0000 00	FEB.	11111	FEB.	111111111
	JAN.	100000010000100000	JAN.	0.00	JAN.	112000000000000000000000000000000000000
	N	00000000000000000000000000000000000000	Z	70.0 70.0 75.0 40.0 30.0	N	880.0 880.0 90.0 90.0 90.0 90.0 90.0
	STATION	133 133 133 133 133 133 133 133 133 133	STATION	107.0 123.0 133.0 137.0 147.0	STATION	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000

	DEC.	0 0 00 0 0 00 0 0 0 0 0 0 0 0 0 0 0 0 0	
	NOV.		
	OCT.		0
	SEP.		
	Y AUG.		
(cont.)	E JULY	000000000000000000000000000000000000000	
Paralepididae (cont.)	JUNE	111000000110000000000000000011100000000	•
Paralep	A. MAY		- (
I	R. APR.	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1
	B. MAR	1 0 01 8000 000 0 0 0 0 0 0 0 0 0 0 0 0	4
	N. FEB		
	JAN		
	STATION	747.0 743.0 743.0 743.0 743.0 743.0 747.0 888.0 10.0 888.3 10.0 10.0 888.3 10.0 10	

	DEC.	
	NOV.	
	OCT.	000000000000000000000000000000000000000
	SEP.	0 00
	AUG.	
it.)	JULY	
Paralepididae (cont.)	JUNE	
lepidid	MAY	
Para]	APR.	000000000000000000000000000000000000000
	MAR.	04000   100   0   0000   1000   0   0000   0
	FEB.	000000000000000000000000000000000000000
	JAN.	4 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -
	ION	40000000000000000000000000000000000000
	STATION	10000 10000

TABLE 4. (cont.)

	DEC.	1	ı	ı	ı	ı	ı	1	ł	ı	1	ı	ı	1	1	1	1		DEC.	-	1	1 1	0	0.0	1	í	I	1	I	ı	i	ı	0	0.0	10	0.0			DEC.	1	0.0	1	
	NOV.	l.	1	ı	ı	ı	ı	1	ı	ì	ı	1	ı	1	ı	ı	ı		NOV.		ı	1	0	0.0	ı	ı	ı	ı	i	ı	ı	ı	i	0.0	1 9	0.0			NOV.	1	0.0	1 1	
	ocr.	0.0	1	1	ı	ı	ı	1	ı	ı	I	1	ı	ı	ı	ı	i		OCT.	ŀ	0	0.0	0			1	l	ı	ı		0.0		0.0	0.0		0.0			OCT.	0.0	0.0	0 1	
	SEP.	ı	1	ı	ı	ł	I	ı	ì	ı	ı	ı	ı	1	1	ı	ı		SEP.		I	ı	ı	ı	ı	I	1	1	1	1	1	t	1 0	0.0	0.0	0.0			SEP.	1	ŧ !	1 1	
	AUG.	0.0	1.3	0.0	3.6	4.0	m m	0.0	0.0	1.9	4.8	1.7	1.9	ı	ı	ı	1		AUG.		1	1	1 9	0.0	ı	t	ı	ı	I	1	0.0	0.0	0.0	0.0	0.0	3.0			AUG.		0.0	0	
ıt.)	JULY	7.6	ı	1	ı	ı	ļ	ı	1	ı	ı	1	1	1	1	ı	9	p.	JULY		1 9	0.0	0.0	0.0	0.0	0.0	1	1	1	ı	0.0	0.0	0.0	0.0	0.0	0.0			JULY	2.8	0.0	0.0	
ae (cor	JUNE	1	ı	ı	1	1	1	ì	1	1	ı	1	1	1	1	ı	ı	urus sp	JUNE		l	ı	1 0	3.2	0.0	0.0	ı	ı	ı	1	0.0	0.0	0.0	2.7	0.0	0.0	rchidae		JUNE		0.0		
Paralepididae (cont.	MAY	ı	i	ı	ı	ı	ı	ı	1	ı	1	ı	1	1	1	1	ı	Scopelosaurus spp.	MAY		1 4		0.0	0.0	3.2	2.8	3.1	7.8	2.8	2.9	2.4	0.0	0.0	0.0	۳. د د د	0.0	Scopelarchida		MAY	0.0	1 0	0.0	3
Para	APR.	0.0	0.0	0.0		0.0				1	1	1	1	ı	1	ı	1	SC	APR.		1 0	0.0	0.0	0.0	0.0	ı	1	ı	i	ı	0.0	3.0	0.0	0.0	0.0	0.0	•	1	APR.	0.0	0.0	۰ ۱	
	MAR.		ı	1	ı	1	1	ı	1	1	ı	ı	ı	1	1	ı	1		MAR.		ı	ı	ı	ı	ı	ı	ı	ı	ı	8	ı	ı	] (	0.0		0.0			MAR.	ı	ı	1 1	
	FEB.		1	1	ı	1	ŀ	1	1	1	1	1	1	1	1	1	1		FEB.		į	10	0.0	0.0	ı	ı	ı	i	ı	ı	0.0	i ·	0.0	0.0	1 1	0.0			FEB.		3.2		
	JAN.	0.0	0.0	5.2	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	6.8	3.2	2.6		JAN.		1 0	0.0	0.0	0.0	1	ı	ı	ı	ı	ł	0.0	ı	ı	ı	1 0	0.0			JAN.	0.0	0.0	0.0	
		55.0	30.0	50.0	70.0	30.0	35.0	50.0	0.09	25.0	45.0	16.0	25.0	70.0	10.0	15.0	80.0				90.0	80.0	70.0	0.09	80.0	85.0	10.0	20.0	30.0	45.0	80.0	85.0	0.06	70.0	75.0	55.0				80.0	55.0	0.00	
	STATION		143.0														157.0		STATION			60.0																	STATION		77.0		

	DEC.	0
	NOV.	0 0 0000
	OCT.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SEP.	00 000000
	AUG.	
cont.)	JULY	000,0000
_	JUNE	10m00m0   10000m0000000000000000000000
copelarchidae	MAY	
Scope	APR.	
	MAR.	000000000000000000000000000000000000000
	FEB.	
	JAN.	
	179	0.000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.
	STATION	8837.0 8877.0 8877.0 8877.0 9907.0 9907.0 11007.0 11007.0 1113.0

TABLE 4. (cont.)

1	DEC.	1111111111111111111111111111111	DEC.	0.00111
	NOV.	[] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	NOV.	0.0111111
	OCT.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	OCT.	000000000000000000000000000000000000000
	SEP.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SEP.	
	AUG.	000 000	AUG.	0.01
nt.)	JULY	ww.1104220002200022000022011111	JULY	0.0000000000000000000000000000000000000
dae (co	JUNE	hidae	JUNE	000
Scopelarchidae (cont.)	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	00000000000000000000000000000000000000
Scope	APR.	00 000000000000000000000000000000000000	APR.	000000000000000000000000000000000000000
	MAR.	0 0 0 00 00000011010111111	MAR.	11111111111
	FEB.	0 00 000000 0 0	FEB.	2.5
	JAN.	8 8 0 0 0 0 0 0 0 8 8 0 0 0 0 0 0 0 0 0	JAN.	0.0000000000000000000000000000000000000
		775.0 77	7-9-	55.0 880.0 70.0 70.0 70.0 110.0 110.0
	STATION	1113.0 1115.0 1117.0 1117.0 1117.0 1120.0 1127.0 1127.0 1127.0 1127.0 1127.0 1127.0 1127.0 1127.0	STATION	50 50 63 73 73 77 77 77 80 80 90 90

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	DEC.	
Myctophildae (cont.)	NOV.	0.0000000000000000000000000000000000000
	OCT.	000000000000000000000000000000000000000
	SEP.	111000000000000000000000000000000000000
	AUG.	100000   0000000000000000000000000000
	JULY	000000   0000000000   00000000000000
	JUNE	
	MAY	
	APR.	00000 00000000 0 0000000000000000000000
	MAR.	
	FEB.	1 0000   1   1 00000   1 0
	JAN.	0 0000 0 0 0000 10 10 10 10 00 00 00 10 1
	NC	145 145 145 145 145 145 145 145
	STATION	88880.0 987.0 987.0 988800.0 98880

	DEC.	*************************************
	NOV.	
	OCT.	110000010101000000000000000000000000000
	SEP.	11190111111110011111110011111111000111111
	AUG.	113.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0
(•:	JULY	11133000000000000000000000000000000000
Myctophidae (cont.)	JUNE	
tophida	MAY	000000000000000000000000000000000000000
Myc	APR.	0.7000000000000000000000000000000000000
	MAR.	
	FEB.	
	JAN.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	STATION	107.0 107.0 107.0 110.0 11

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	000000000000000000000000000000000000000
	SEP.	0.00 0.1 0.00 0.00 0.00 0.00 0.00 0.00
	AUG.	1
t.)	JULY	00000000004000000000000000000000000000
Myctophidae (cont.	JUNE	0.0000000000000000000000000000000000000
tophid	MAY	0 0 1 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Myc	APR.	111111111111111000001000000000000000000
	MAR.	00,0000
	FEB.	40m00010000m1100004100400111m000011111111
	JAN.	000 00000 0 000000 000000 000000 000000
	N	22000000000000000000000000000000000000
	STATION	10111111111111111111111111111111111111

TABLE 4. (cont.)

	DEC.		i	I	ı	ı	1	1	ı	ı		1	í	1	ı	ł		DEC.	1	١	ı	ı	1	I	ţ	ı	I	1 9	0	1 1	1	ı	ı	1	ı	1 0	0.0	1 0	000	•	ı	1	0.0	0.0
	NOV.		i	ı '	į	ı	ı	ı	1	1		ı	ı	ı	ł	ı		NOV.	ı	ı	i	1	ı	ı	1	I	I	1 0	0.0	1 1	1	1	ı	1	ı	1 0	0.0	i		1	ı	ı	0.0	0.0
	OCT.		ł	l	ı	ı	1	1	1	1		ı	ł	ı	I	ı		OCT.	ı	ı	I	0.0	0.0	0.0	t	1	1	1 <	0.0	0	0.0	0.0	0.0	1	0.0		0.0	1 0	0.0	1		ı		2.8
	SKP.		ı	I	8	ı	ı	1	ş	ı		ı	ŧ	ı	ı	ı	ì	SEP.		1	ı	1	1	1	ı	i	ı	ı	I	1 1	1	1	ı	1	1 :	0.0	0.0	0.0	0.0	200	0 1	1		0.0
	AUG.		0.0	7.7	0.0	0.0	0.0	5.6	1	1	ı	I	I	ı	1	1		AUG.		ı	I	ı	1	3.0	1	j	1	1 0	0			0 0			0.0						1 1	- 1		0.0
t.)	JULY			ŝ	ı	ı	ł	ı	ı	1	}	ł	1	ı	ı	1	sendi	JULY	2.8	0	3.0	0.0	0.0	0.0	1	1	1					0 1			0.0	- 0				1	1 1			0.0
Myctophidae (cont.)	JUNE		ł	I	ı	ı	1	1	ı	1	1	ı	I	ı	ı	ı	Ceratoscopelus townsendi	JUNE		I	ļ	1	ı	0.0	ı	ı	1	1 0			0	0 1			2.8			î	1	ı	1		_	0.0
tophid	MAY		I	ı	1	ı	1	i	ı	1	1	1	i	1	ı	ı	scope	MAY		1 0	0	0.0	0.0	0.0	11.5	52.0	8.7		0.0	0.0	000	000	0.0	0.0	5.9	3.1	3. ₽	3.1	0.0	2.4.5	14.0	F 0 - L L		0.0
My	APR.	1		0	. 0	3.0	1	1	1		1	ı	1	1	1	ı	Cerato	APR.		ı	1	3.3	8.5	0.0	ı	ı	ı			0	0				0.0					I	1	l i	_	0.0
	MAR.		1	ı	ı	ţ	ı	ı	1		ŀ	ı	ı	1	ı	ı		MAR.		ı	ı	1	ı	ı	ı	ı	ı	ı	1	I	1	1	ı	1	1	ı	2.6		2.2	1	i	1		0.0
	FEB.		ı	1	1	ı	1	ş	i	1	ı	ı	ı	1	1	ı		FEB.	1 1	ı	ı	i	ŀ	0.0	1	ı	ı		0.0		0.0	000	0		0.0	ı	0.0		0.0	ı	I	1		0.0
	JAN.							0		0				. 0	1.8			JAN.		-	ı		0.0		i	ı	ı		0.0		0.0	0	ı	1	1	1	1	ı	I	ı	1	1		0.0
	N		35.0	40.0	45.0	55.0	40.0	25.0	2000	0.00	20.02	25.0	30.0	55.0	70.0	80.0		N	85.0	75.0	20.00	0.00	0.06	80.0	100.0	110.0	120.0	130.0	60.09	65.0	0.07	20.0	0.08	85.0	0.06	75.0	0.08	85.0	90.0	100.0	120.0	130.0	40.0	45.0
	STATION		147.0	147.0	147.0	147.0	150.0	150.0	15000	153.0	157.0	157.0	157.0	157.0	157.0	157.0		STATION	50 0	0.00	0.09	0.09	63.0	80.0	80.0	80.0	80.0	80.0	83.0	83.0	83.0	020	87.0	87.0	87.0	0.06	0.06	0.06	90.0	90.0	0.06	0.00	0.00	93.0

TABLE 4. (cont.)

	DBC.	0 00 00
	NOV.	0.00
	ocr.	13.3 13.3 13.3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
	SEP.	7.286005330
t.)	AUG.	25.00 25
i (cont.)	JULY	000000000000000000000000000000000000000
Ceratoscopelus townsendi	JUNE	000018 00001000000000000000000000000000
selus to	MAY	0.000000000000000000000000000000000000
atoscol	APR.	000000110088000000000000000000000000000
Cer	MAR.	
	FEB.	0 1 2 1 2 1 0 0 0 1 0 1 0 1 0 0 0 0 0 1 1 1 1
	JAN.	0 0 0 4 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0
	Z	100.00 110.00 110.00 110.00 110.00 110.00 110.00 110.00 120.00 120.00 130.00 130.00 130.00 140.00
	STATION	9933300 9933300 9933300 1000000 100000000000000000000000

	DEC.	
	NOV.	
	OCT.	1
	SEP.	000000000000000000000000000000000000000
(	AUG.	33.8 35.8 35.8 35.8 37.8 37.8 37.9 37.0
(cont.)	JULY	20100000000000000000000000000000000000
Ceratoscopelus townsendi	JUNE	2000 0000
elus to	MAY	08807788800000077000000000000000000000
atoscop	APR.	00000000000000000000000000000000000000
Cer	MAR.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	FEB.	
	JAN.	0.0000000000000000000000000000000000000
	N	0.000000000000000000000000000000000000
	STATION	10077000000000000000000000000000000000

TABLE 4. (cont.)

	DEC.		
	NOV.		
	OCT.	8 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	
	SEP.	5. 0. 0000	
•	AUG.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
(cont.)	JULY	10000000000000000000000000000000000000	
Ceratoscopelus townsendi	JUNE	44 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
lus to	MAY	8 614 82 4 1 2 2 2 4 1 2 2 2 2 4 1 2 2 2 2 2 2	
toscope	APR.	0.0000 0.0000 0.00000 0.000000 0.0000000	
Cera	MAR.	2	
	FEB.	0 0 0000 0000 0000 0000	
	JAN.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	STATION	1220 1220 1220 1220 1230	

TABLE 4. (cont.)

DEC. DEC. 111111111111111111111111101 111111111 ROV MOV 1001 111111111 CT 111111111 SEP. SEP 1 1 1 1 1 1 1 1 1 004020000 00000 AUG. AUG. 25.21.4.1.00 Ceratoscopelus townsendi (cont.) JULY JULY 111111111 Diaphus spp JUNE 04000000 JUNE 191000000 1111111111 00000000000000000 MAY MAY 9000 APR. APR 111010001 MAR MAR . . . . . . . . . . FEB FEB 101 111111111 0000 0000 JAN. 000010000 440.0 550.0 770.0 550.0 60.0 60.0 STATION STATION 00000000 143.0 143.0 143.0 150.0 6660. 6663. 7777. 7777. 8880.

0

00

TABLE 4. (cont.)

	DEC.	
	NOV.	0.0000000000000000000000000000000000000
	OCT.	
	SEP.	
	AUG.	0.000000000000000000000000000000000000
t.)	JULY	00000 00000000000000000000000000000000
p. (con	JUNE	www.ww.ww.ww.ww.ww.ww.ww.ww.ww.ww.ww.ww
Diaphus spp. (cont.)	MAY	
Dia	APR.	
	MAR.	000000000000000000000000000000000000000
	FEB.	
	JAN.	
	Z	00000000000000000000000000000000000000
	STATION	88888888888888888888888888888888888888

TABLE 4. (cont.)

	DEC.	F		DEC.	0.0	1	10		. 1	ı	ı	ı		1	ı	ı	ı	1 1	ii	1	1	1	1	i	1 1	1	ı	ı	1	1		- 1	ı	1	1	ı	ı	1
	NOV	ł,		NOV	1	I	1 1		1	ł	1	i	1 1	1	i	1	I	î	1 1	1	ı	ı	ŝ	i	1 1	ı	i	ı	1	1 3	1	1	ı	1	ŧ	ŧ	ı	1
	OCT.	ı		OCT.	2.8	i	1 1	)	1	5.6	i	1 0	y C	0.0	3.0	0.0	1 0	200		0.0	5.7	ı	0.0	1	1 0	)	ı	8.4	0.0	10	000			0.0	1	4.9		2 K
	SEP.	ı		SEP.	0.0	2.5	7.7	0 7 6	4.4	1	1	ı	1 1	ı	ı	ı	ı	ı	1 1	ı	ı	ı	1	ı	1 1	ı	1	ı	ı	ı	1 0	0.1	1	ı	1	ı	ı	1
	AUG.	6.8		AUG.	0.0	1	3.1	1.01	1	0.0	2.9	J. 0	y c ⊃ o	0.6	0.0	19.3	6.3	4.4	4.0	3.0	14.9	42.0	19.7	7.8	25.2	3.2	0.0	0.0	21.3	0.0	ا ا ا	0,0	, c	56.5	0.0	0.0	0.0	9
nt.)	JULY	ı	50	JULY	0.0	1	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10		0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	000	000	0.0	0.0	0.0	0.0	0
Diaphus spp. (cont.)	JUNE	1	Lampadena urophaos	JUNE		1	0.0	0.0	1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	5.9	2.6	0.0	0.0	0.0	0.0	000	2.6	2.8	0.0	2.7	0
is snyd	MAY	1	npadena	MAY	0.0	0.0	0.0	0.0	1 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	<
Dia	APR.		Lai	APR.	0.0	1	0.0	0.0	1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	•	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	
	MAR.			MAR.	0.0	ı	10	0.0	li	0.0	ı	ı	10	000	0.0	1	ı	1 0	0.0	000	0.0	1	0.0	8	1 1	0.0	)	0.0	0.0	ı	1 4	0.0		0.0	0.0	0.0	1	0
	FEB.			FEB.	0.0	ı	10	0.0	1 1	0.0	ı	L	0.0	0.0	0.0	0.0	ı	0.0	0.0	000	0.0		0.0	ı	1	0.0	)	ı	ı	ŧ	1 0	0.0			0.0	0.0	ı	0
	JAN.	0.0		JAN.		ı	10	0.0	1 1	0.0	ı	1	0.0	0	0	0.0	ı	0.0	0.0	000	0.0		0.0	1	10	000	0 1	0.0	0.0	1 (	0.0	0.0	000		) ) 	0.0	1	0
	N(	16.0		N	90.0	120.0	85.0	90.0	1100.0	50.0	65.0	75.0	0.06	40.0	55.0	70.0	75.0	0.06	40.0	20.00	0.09	65.0	70.0	75.0	82.0	25.0	65.0	70.0	80.0	85.0	90.0	35.0	20.0	60.0	65.0	70.0	75.0	000
	STATION	153.0		STATION			93.0						0,0	100.0	0	0	0.								103.0				107.0	107.0	107.0	110.0	110.0	110.0	110.0	110.0	110.0	2300

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	SEP.	0.0111111110001111110011111111111111111
	AUG.	1 0 1 1 1 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2
(cont.)	JULY	
	JUNE	20000000000000000000000000000000000000
Lampadena urophaos	MAY	2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Lampade	APR.	000000000000000000000000000000000000000
	MAR.	000000000000000000000000000000000000000
	FEB.	
	JAN.	
	Z	0.000000000000000000000000000000000000
	STATION	10000000000000000000000000000000000000

	DEC.	11111		DEC.	0.0	1 1	0.0	0.0	0.0	0.1	0.0	1 1	ı	1 1	ı	1 1	ı	! !	1	1	I	1 1	Ιİ	i	LI
	NOV.	11111		NOV.	0001	1 1	0.0	0.0	0.0	0.0	1 1	1 1	ŀ	1 1	ı	1 1	ı	1 1	1 1	1	ı	1 1	1 1	ı	1 1
	OCT.	0.00		OCT.	0.0	0 0	000	0 0		0.0	1 (	0.0	0 0	0.0	10	000	0.0	000	0.0	0.0	(	0.0	0.0	1	0.0
	SEP.	1 1 1 1 1		SEP.	1 1 1	1-1	0.0	0.0		5.5	0 1		1	1 1	ı	1 1	ı	1 1	ı	1	l	1 1	1-1	ı	1 1
	AUG.	1.7		AUG.	3.2	6.4	100	6.4	0.0	0.0	3.2	3.0	000	3.4	3.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.9	0.0	15.2
(cont.)	JULY	0000	.0	JULY	0.0	0.0	000	0.0		0.0		1 0	2.5	0.0	0.0	0.0	1	0.0	0.0	2.7	0.0	5.7	000	0.0	2.8
phaos	JUNE	0.0	Lampanyctus spp	JUNE	0.0	0.0	000	0.0	0.0	00.0	0.0	0.0	000	000	0.0	0.0	0.0	0.0	0.00	0.0	0.0	0.0	000	3.0	0.0
Lampadena urophaos	MAY	10.1	ampanyo	MAY	0.0	0.00	000	0.00	8.00	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0
Lampade	APR.	0.00	T	APR.	0.0	0.0	000	0.0	0.0	0.0	0.0	1 0	000	2.9	0.0	0.0	0.0	2.4	ຸດ	0.0	2.8	0.0	000	0.0	0.0
	MAR.	0.0		MAR.		1 (	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 1	ı	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0		0.0
	FEB.	0.0		FEB.	0.0	0.0	000	0.0	0.0	0.0	0.0		0.0	10	0 1	0.0	0.0	0.0	0.0	0.0	ı	1 1	0.0	0	1 1
	JAN.	0.0000		JAN.	0.0			1	0.0	0.0	0.0		0.0	10	•	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0	) •	0.0
	NC	60.0 50.0 55.0 80.0 55.0		NC	55.0		60.									35.0	40.0	45.0	60.0	70.0	75.0	80.0	40.0	65.0	70.0
	STATION	133.0 137.0 137.0 140.0		STATION	77.0	87.0	0.00	0.06	90.0	93.0	03.0	97.0	100.0	100.0	100.0	100.0	103.0	103.0	103.0	103.0	103.0	103.0	107.0	107.0	107.0

TABLE 4. (cont.)

	DEC.		
	NOV.		
	ocr.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	SEP.		
	AUG.	m00000000110000111m000010000110100000000	
ont.)	JULY		
pp. (con	JUNE		
Lampanyctus spp.	MAY	0.000000000000000000000000000000000000	
Lampan	APR.	000000000000000000000000000000000000000	
	MAR.	000000000000000000000000000000000000000	
	FEB.		
	JAN.		
	N	80448000008804000880440000800440000040404000000	
	STATION	10000000000000000000000000000000000000	

	DEC.	
	NOV.	
	OCT.	000000212200220000000000000000000000000
	SEP.	0000 00
	AUG.	0000@www0010000000000000000000000000000
cont.)	JULY	100000000000000000000000000000000000000
Lampanyctus spp. (cont.	JUNE	
nyctus	MAY	000000000000000000000000000000000000000
Lampa	APR.	10002874   10001884
	MAR.	0.000000 0.00000 0.000000 0.0000000000
	FEB.	1000000   10000   1   1   1   1   1
	JAN.	
	STATION	00000000000000000000000000000000000000
	STA	7/7/7/200000000000000000000000000000000

TABLE 4. (cont.)

				Lampa	Lampanyctus spp.		(cont.)					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
	0.0			0.0				4.4	1	1	1	,
	0.0	ı	ı	5.8	ı	ı	1		ı	1	t	1
25	0.0	ı	ı	ı	1	ı	1	0	ı	ı	ı	1
30	0.0	ı	ı	ı	l	ı	ı		1	1	ı	1
150.0 35.0	2.2	ı	1	!	1	ı	I	D . 4	1	1		1 (
40	200	1	1 1		1 1	1	- 1	0			1	1
4 A	2.0	ı	- 1	ı	ı	ı	i	0 (	ı	1	ı	1
60	0.0	1	ı	1	ı	ı	1		1	ı	ı	1
16	2,5	1	ı	ı	ı	1	1		1	1	90	ı
25	0.0	1	1	1	1	1	ı		1	ı	ı	1
30	11.5	ı	1	ı	ı	1	ı	ı	ı	ı	ı	I
53.0 35	2.3	1	ı	ı	ł	ŀ	ı	ı	ı	ı	1	ı
53.0 45	5.3	1	ı	ı	1	ı	ı	ı	1	t	ı	ı
50	2.8	ı	ı	1	ı	ı	ı	ı	ı	ı	ı	ı
53.0 70	2.9	ı	ı	ł	ı	ı	ı	1	ı	ı	ı	ı
57.0 10	5.9	ı	ı	ı	ı	1	ı	1	ı	1	ı	ı
57.0 20	5.0	1	ı	ı	1	ı	ı	ı	1	ı	ı	ı
25	11.4	ı	ı	1	I	1	1	i	ı	ı	1	ı
57.0 30	4.6	1	ı	1	ı	1	ı	ı	1	ı	ı	ı
50	10.4	ı	ı	ł	1	ì	ŀ	ı	1	ı	ı	ı
57.0 55	16.9	ı	ı	ŀ	ı	ł	ı	ı	ı	ı	ı	ı
57.0 60	2.7	I	1	ı	ı	ı	ı	1	ı	ı	ı	ı
70	1.8	1	ı	I	1	ı	1	1	ı	ı	ŧ	1
80	23.2	ı	ı	1	ı	ı	1	ſ	ı	1	ł	ı
				Lam	panyctu	Lampanyctus regalis	lis					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
!	0.0			0.0	0-0		3.0	1	1	0.0	ı	1
90.	0.0	ı	1	0.0	0.0	1	2.5	ı	ı	0.0	ı	1
60.	0.0	ı	1	0.0		i	3,3	1	1	0.0	ı	ı
65.	ı	1	i	1		1	3,3	ı	ı	ı	ı	1
90.	0.0	ı	1	0.0		ı	7.5	1	ı	0.0	I	ı
55.	0.0	1	ı	0.0	0.0	ı	w.	1	1	0.0	1	1 1
960.	0.0	1 1	1 1	0.0		1 1	, v	1 1	1 1	0	! !	1
00	0.0	1	1	0.0		1	, m	ı	ı	0.0	ı	ı
55.	0.0	1	1	0.0	0.0	ı	3.0	t	1	0.0	1	1
65.	1	1	1	0.0		ı	3.1	1	ı	ı	1	1
75.	1 0	ı	ı	10	n n	ı	3,1	1	ı	10	ı	1
90.	0.0	1 1	1 1	0.0	0.0	1 1	200	ll	1 1	0.1	1 1	1 1
73.0 80.0	1		1	2.9	0.0	1	9.9	1	ı	0.0	ı	1
85.	1	1	1	1 1	6.0	ı	0.0	ı	ı	1	ı	1

TABLE 4. (cont.)

	DEC.	0.0	i	0.0	1	ı	1	ı	0.0	ı	ı	ı	ı	L	0.0	ı	I	1 4	0.0	ı	1 1			DBC.	ı	ı		ł	ı	t	i	1 8		- 1	\$	ı	ı	ı	ł	ı	ŧ
	NOV.	0.0	ı	0.0	1	1	ı	ı	0.0	1	ł	ı	ı	1	0.0	ı	ı	1	0.0	ı	1 1	1		NOV.	1	1	ı	ı	ı	I	ı	1 1			ı	ı	ı	ı	i	ŀ	ı
	OCT.	0.0	i	0.0		•	ı	0.0	0.0	1	0.0	0.0	1 :	0.0	0.0	0	0.0	1	0.0	1 4	000	0.0		OCT.	8.8	ı	0.0	I	1 (	2.6	1 9	000	•		ı	0		0.0	0.0	0.0	0.0
	SEP.		ı	1 1	1	ı	ı	1	1	ı	ı	ı	ı	1	I	ı	1	400	0.0	0.0	1 9			SEP.		1	ı	ı	ı	ı	í	1	1	1	1	ı	ı	ı	I	i	1
	AUG.	3.2	ı	1	) (	ý	0.0	0.0	0.0				1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		AUG.		1	ı	į	t	ı	ı	ı	1 1	! !	1	- 1	1	ı	1	ı	I
(cont.)	JULY	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	2.8	2.4	0.0	3.1	2.5	6.1	3.2	2.2	0.0	0.0	3.0	200	0.0	eri	JULY	2.9	2.8	3.0	3.0	5.7	8 . 4	14.9	4.7	7.00	17.7	0.0	ָר ה ת	6.5	6.7		m (	
galis	JUNE	3.1	. 0	2.4	0	0.0	3.0	3.3	0.0	3.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	s ritteri	JUNE		1	1	ı	1	ŀ	I	ı	1	ł I	1		ı	1	1	ı	1
Lampanyctus regalis	MAY	0.0	0.0	0.0		200	0.0	0.0	9.1	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	Lampanyctus	MAY		1	0.0	12.2	0.0	0.0	0.0	000	0.0	000	10.0	1 A 7		0.0	1	0.0	0.0
ampany	APR.	0.0			C   C		0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ł	Lam	APR.		1	0.0	0.0		0.0	1 0	TO.0	0.0	i	1 1			0	0	0.0	0
7	MAR.		ı	ı	1 1	1	ı	ı	1	ı	ŀ	ı	ı	ı	1	1	I	ı	0.0	1 0	0.0	0.0		MAR.		1	ı	1	ı	1	I	ì	1	1	}	1	1	1	1	ı	ı
:	FEB.	0.0	1	0.0	1 1	1	1		0.0	1	0.0	0.0		0.0	0.0	1	0.0	1	0.0	1 4	0.0			FEB.		1	1	ı	ı	1	ı	ł	ı	1	1 1	1	- 1	ı	ı	t	ı
	JAN.	0.0	1	0.0	1 1	1	1	0.0	0.0	ı	0.0	_		0.0	1	ı	ı	ı	0.0		0.0			JAN.		1	0.0	ı		2.6	(	0.0	0.0	0.0		0	000	•	0.0	1 (	0.0
	N	55.0	65.0	70.0	0.00	85.0	85.0	0.06	0.09	65.0	70.0	80.0	85.0	0.06	0.09	65.0	70.0	85.0	55.0	85.0	60.0	3/.0		N	80.0	85.0	0.09	65.0	75.0	80.0	85.0	90.0	20.00	70.0	0.00	0.00	75.0	80.0	0.06	52.0	55.0
	STATION	77.0	77.0	77.0	0.//	77.0	80.0	80.0	83.0	83.0	83.0	83.0	83.0	83.0	87.0	87.0	87.0	87.0	93.0	93.0	97.0	123.0		STATION	50.0	50.0	0.09	0.09	0.09	0.09	0.09	0.09	03.00	02.0	03.0	0000	67.0	67.0	67.0	70.0	70.0

TABLE 4. (cont.)

	DBC.	ı	ı	I	1 1	ı	ı	ı	1	1	1	0.0	1 0	0 1	0.0	ı	ı	ŧ	1 0	0.0	0.0	0.0	1	ı	1 1	ı	ι	ı		0.0			i	ı	1 1	ı		0.0		ı
	NOV.	1	ı	ı		1 1	1	1	1	1	1	0.0	1 9	0 1	0.0	) !	1	t	1 1	0.0	0.0	0.0	1	1	1 1	ı	1	1		0.0			ı	ı	t 1	1	0.0	0.0	0.0	l
	OCT.	0.0	1 (	0.0	0 1 2		0.0	1	0.0	1	0.0	0.0	1 4	0.0	0	)	0.0	1	0.0	0.0	0.0	0.0	t	2.8	1 0		ŧ	1		0.0	0 6		1.5		0.0		0.0	0.0	0.0	1
	SEP.	ı	ı	ı	1	l 1	1	ı	1	1	ı	Į.	ı	1 1	- 1	1	1	1	ı	ı	1 1	1 1	ı	ı	l l	1 1	i	ı	ı	1	1	1	ı	ŀ	1	1 1	1	ı	1 1	1
	AUG.	ı	1	ı	1 1	1 1		ı	ı	ı	ı	0.0	10	0.0	1	1	ı	ı	1	0.0	0.0	0,0			0.0		1	ı	1	0.0		0.0	3.2		4.7	0	0.0	0.0	0.0	2.6
(cont.)	JULY	9.5	3.1	₩.	0.0	4.0	000	0	, m	0.0	3.2	3.4	1 0	200		0.00	4.6	0.0	0.0	0.0	w c	, c	0.0	0.0	0.0	0.0	ı	1	1	0.0	0.0	2.8	0.0	0.0	0.0	, r	0.0	0.0	000	3.2
tteri	JUNE	1	t	ı	i	1 (	1 1	ı	1	ı		0.0	1 0	7.5	7°°°	r 0 1	0.0										1	1	1	0.0			0 0			0		0.0	0 1	
Lampanyctus ritteri	MAY	-	5.5	ر م م	n .	0.0	0.0		24.1	-	~	1										0.0					6.1	8.7						8				0.0		
ampany	APR.	2.3	1	0.0	1 4	7.0	7.61	1 . 7 . 1	0.0	1	5.9			2.0			3.1	ł > 1				7.4	9 0				1	1	ı	0.0								0.0		
I	MAR.	1	ı	1	ı	ı	1 1	ı		i	ı	ł	ı	ı	1	1	1	ı	ı	ı	ŀ	ll	ı	1	ı		1 1	1		0.0	1 1	1	ı	1	1	l f	0.0	0.0	l I	ı
	FEB.		ı	i	ı		3.0	0	1	ı	1	0.0	0.9	0.0	1 1	7.	ı	ı	1	0.0	0.0	1 9	1.0	15.5		7.9	1 1	ı	1	0.0	0.0	0 1	2.4	1	2.9			0.0		
	JAN.	0.0	) ) )	0.0			90		1 1	1	1	0.0		0.0	1 0	0.0	- 1	1	1	2.8	0.0	10	0 1	5.6	1 (	0.0	1 1	1	ı	0.0	0.0	0 1	14.7		2.8	1 0	300	300	0.0	ı
		70.0	75.0	80.0	85.0	90.0	60.0	75.0	30.0	85.0	0.06	55.0	57.0	60.09	65.0	75.0	0.00	85.0	0.06	55.0	60.09	65.0	75.0	80.0	85.0	0.00	110.0	120.0	130.0	43.0	55.0	65.0	70.0	75.0	80.0	0.00	40.0	50.0	55.0	65.0
	STATION	0	0	0	0	0	00	00	73.0		0	0	0	0	0	90	00	0																				87.0		

MAR. APR. MAY JUNE JULY ANG. SEP. OCT. NOV. D  - 0.0	FEB. MAR. APR. MAY UNKE JULY ANG. SEP. OCT. NOV.  10.0	1			7	Lampanycı		us ritteri	(cont.)		-			
0.0	0.0		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
10.0	10.0	į		0.0		0.9	10.2		0.0		1	0.0	ŧ	ı
10.4	10.4		ı	1 4	1 1	000	15.2		C 1 C		1 1	0.0	1 1	1 1
10.4	10.4				1	9	, r.		0.0		+	)	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0         0.0 <td></td> <td>ı</td> <td>10.4</td> <td>1</td> <td>2.8</td> <td>0.0</td> <td></td> <td>0.0</td> <td></td> <td>ı</td> <td>0.0</td> <td>1</td> <td>1</td>		ı	10.4	1	2.8	0.0		0.0		ı	0.0	1	1
1.   1.   1.   1.   1.   1.   1.   1.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		2.9	0.0	0.0	1	1	ı	1		ı	1	0.0	ſ
11.4 16.4 16.5 16.0 16.0 16.0 16.0 16.0 16.0 16.0 16.0	1.4   16.4   14.5   15.0   1		0.0	0.0	0.0	0.0	0.0	0.0	3.0		0.0	0.0	0.0	0.0
1.4   16.4   14.5   15.8   16.0   10.0   1	1.4   16.4   14.5   15.3   10.0   1		0	0.0	0.0	6.2	0.0	3.0	0.0		0.0	0.0	0.0	0.0
11.4 16.4 16.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17	11.4 16.4 14.5 15.3 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10			9		0.0	0.0	0.0	0.0		0.0	0.0	2.7	3.1
1.5 12.9 22.9 3.4 11.8 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.5 12.9 2.9 3.4 1.8 3.3 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0			0 5			13.0			,	0		0.0	0.0
1.4 16.49 14.5 3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.4 16.49 14.5		ı	1.4	0.4	0.0	0.21				0,4			0 1
1.5   12.9   2.9   3.4   11.8   3.3   3.0   0.0	1.5 12.9 2.9 3.4 11.8 3.3 2.0 0.0 0.0 2.9 2.9 2.9 3.4 11.8 3.3 2.6 0.0 0.0 0.0 3.5 2.9 2.9 3.4 11.8 3.3 2.6 0.0 0.0 0.0 3.5 2.9 3.4 11.8 3.3 2.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		ì	1	0.4		T2.2	0.0	0.0			0		0
1.5 12.9 2.9 3.1 11.8 3.0 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1.5 12.9 2.9 3.1 10.0 3.1 0.0 2.9 3.1 10.0 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		ı	1.4	16.4	14.5	3.0	0.0	0.0		0.0	0.0	7.0	0.0
1.5 12.9 2.9 3.4 11.8 3.3 0.0 0.0 0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1.5         12.9         2.9         3.4         11.8         3.3         0.0 </td <td></td> <td>1</td> <td>1</td> <td>1</td> <td>5,6</td> <td>6.1</td> <td>0.0</td> <td>0.0</td> <td></td> <td>0.0</td> <td>ı</td> <td>l</td> <td>ŧ</td>		1	1	1	5,6	6.1	0.0	0.0		0.0	ı	l	ŧ
2.9 4.5 5.9 3.1	2.9 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		1	5		2.9	3.4	11.8	3,3		0.0	0.0	3,5	0.0
2.9 4.5	2.9 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		1			000		1	3.0		0.0	1	1	1
10   10   10   10   10   10   10   10	2.9 4.5 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		1	0	1		,			0		0	1	2 0
100   100	10		ı	6.7	4.0	0.0	0.0	1	0.0		000	0.0		, 0
10			1	1	I	ı	2.8	ı	ł	ı	0.0	ı	ı	0.0
	-         -		ı	1	ı	ı	8.7	ı	ı	ı	0.0	ı	ı	I
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0         0.0 <td></td> <td>1</td> <td></td> <td></td> <td>ı</td> <td>2 8</td> <td>ı</td> <td>1</td> <td>1</td> <td>ı</td> <td>1</td> <td>t</td> <td>1</td>		1			ı	2 8	ı	1	1	ı	1	t	1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		1				9 0				1	1	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		1	1	1	1	7.8			1 4	1 0	(		(
0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0
2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
22.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0									0	0.0	0 0	0.0	0.0
10   2   2   2   2   2   2   2   2   2	2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		000		, ,								0	0
2.9	2.9		000	0.0	0.0	0.0	0.0		000				0,0	
0.0	0.0		0.0	7.9	0.0	0.0	7.1	7 . 4	0.0	3.0	0.0	0.0		0.0
- 7.0 8.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	- 7.0 8.56 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		0.0	0.0	6.2	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	7 . 1
- 7.0 8:5 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		ı	1	1	5.6	0.0	0.0	0.0	0.0	0.0	I	ı	1
0.0 13.2 8.6 0.0 3.2 3.4 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0         13.2         8.6         0.0         2.8         0.0 <td></td> <td>0</td> <td></td> <td>7 0</td> <td>C C</td> <td>0</td> <td>0 9</td> <td>0.0</td> <td>0.0</td> <td>2.6</td> <td>3,3</td> <td>0.0</td> <td>2.9</td>		0		7 0	C C	0	0 9	0.0	0.0	2.6	3,3	0.0	2.9
0.0	0.0 13.2 8.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0		0 .	000		000				)		ı
0.0 13.2 8.6 0.0 3.2 3.4 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 13.2 8.6 0.0 3.2 3.4 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		1	ı		0.0	0.0	0.7	0.0	0.0		0	0	0
	0.0 4.6 2.9 9.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	0.0	13.2	8.6	0.0	3.2	3.4	0.9	0.0	0.0	0.0	0.0
0.0 4.6 2.9 5.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 4.6 2.9 9.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		1	1	I	0.0	0.0	0.0	0.0	9.2	0.0	1	ı	ı
10.0	10.5 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0	0	3 V	0 0	0	0	0	3 2	0.0	ŧ	1	0.0
10.5	10.5					, 0	2 4				) ) 	0	ı	1
0.0 8.3 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 8.3 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	0.0	C . 7	0.0	0.0	0.0	0.0	0.0		•		
0.0 5.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 5.5 0.0 0.0 2.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	0.0	œ ع	2.9	0.0	0.0	0.0	0.0	ı	0.0	ı	1
10.5 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	10.5		2	0	7	0	0.0	2.7	0.0	0.0	ı	0.0	i	l
10.5	10.5		000		0 0				)			0	1	1
10.5 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	10.5 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.11	0.0	0.0	1	0.0	0.0	0					
10.5 - 0.0 2.8 2.7 0.0 0.0 - 0.0 2.9 2.7 20.9 2.9 3.4 - 0.0 2.9 3.5 2.9 3.4 - 0.0 2.8 2.9 3.5 2.9 3.4 - 0.0 2.8 2.9 3.5 2.9 3.4 - 0.0 2.8 3.5 2.9 2.9 3.4 - 0.0 2.8 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		5.4	0.0	0.0	5.6	0.0	7.7	2.8	0.0	ı	0.0	i	l
10.5 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1	1	1	0.0	2.8	2.7	0.0	0.0	ı	1	1	ı
20.9 - 8.1 0.0 2.8 3.4 - 0.0 2.8 0.0 2.8 0.0 2.9 0.0 2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	20.9 - 8.1 0.0 2.8 3.4 - 0.0 0.0 2.8 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0	200				4 7				0	ı	ŧ
20.9 - 8.1 0.0 3.0 2.8 3.4 - 0.0 2.8 2.8 0.0 - 0.0 2.8 2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	20.9 - 8.1 0.0 2.8 0.0 2.9 0.0 2.9 2.4 2.2 2.4 2.2 2.4 2.2 2.4 2.4 2.4 2.4		0.0	C.U.	I	0.0	0.0	0.0	0.0			•		1
20.9 - 0.0 0.0 0.0 2.8 0.0 - 0.0 2.8 0.0 - 0.0 2.8 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	20.9 - 0.0 0.0 0.0 2.8 0.0 - 0.0 2.8 0.0 - 0.0 2.8 2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		ı	1	ł	8.1	0.0	3.0	7.9	3.4	1		ŀ	1
2.6 - 0.0 2.8 3.5 0.0 0.0 - 0.0 2.8 2.3 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.6 - 0.0 2.8 3.5 0.0 0.0 - 0.0 2.8 2.8 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		3.0	20.9	ı	0.0	0.0	0.0	2.8	0.0	ı	0.0	1	1
2.6 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.6 - 0.0 0.0 0.0 2.8 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0						3 6	2 2	0	0	ı	1	ı	ı
2.3 0.0 0.0 0.0 0.0 2.9 - 0.0 0.0 0.0 2.7 7.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.7 7.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 - 0.0 2.7 2.7 7.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0			000	, 0	, ,	000		1	0	ı	ı
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	0.7	1 0	0.0			9 0					1
0.0  20.8  0.0  0.0  0.0  0.0  0.0  -2.8	0.0 20.8 0.0 0.0 0.0 0.0 0.0 0.0 - 0.0 2.7 7.4 0.0 0.0 0.0 0.0 0.0 0.0 - 2.8		0.0	2.3	0.0	0.0	0.0	0.0	0.0	6.7	ı	0.0	ı	
7.4 0.0 0.0 0.0 0.0 0.0	7.4 0.0 0.0 0.0 0.0 0.0		ı	0.0	20.8	0.0	0.0	0.0	0.0	0.0	80	0.0	ı	
			0.0	2.7	7.4	0.0	0.0	0.0	0.0	0.0	ı	2.8	ı	ı

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	
	SEP.	0.00.00.00.00.00.00.00.00.00.00.00.00.0
	AUG.	000000000000000000000000000000000000000
(cont.)	JULY	
	JUNE	
Lampanyctus ritteri	MAY	87000000000000000000000000000000000000
mpanyc	APR.	000480000000000000000000000000000000000
La	MAR.	2
	FEB.	2   2   2   2   2   2   2   2   2   2
	JAN.	10000000000000000000000000000000000000
	Z	0.000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.
	STATION	0.000000000000000000000000000000000000

TABLE 4. (cont.)

	DBC.	1111111111111111111111111111111111	DEC.	1 1 1
	NOV.	11111111111111111111111111111111111	NOV.	1 1 1
	OCT.	0 0000000 0 000000 000000 0000	ocT.	0000
	SEP.	000000000000000000000000000000000000000	SEP.	111
	AUG.	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AUG.	3.1
cont.)	JULY	19.00.00.00.00.00.00.00.00.00.00.00.00.00	JULY	0000
teri (	JUNE	2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	JUNE	000
tus rit	MAY	2.000000000000000000000000000000000000	MAY	000
Lampanyctus ritteri	APR.	Noto:	APR.	6.3
L	MAR.	0 0000000 00000000000000000000000000000	MAR.	0.0
	FEB.	000000000000000000000000000000000000000	FEB.	0.00
	JAN.	0 0000004 0 0000000 00 10010000	JAN.	0.0
	N	208994488896744889898989898989989999999999	N	0.06
	STATION	11133.0 11133.0 11133.0 11133.0 11133.0 11133.0 11230.0 11233.0 11233.0 11337.0 11337.0	STATION	83.0 100.0 117.0

TABLE 4. (cont.)

	DEC.	1	ı	ı	1	ı		0.0	ı	ı	ı	ı	ı	1	ı	ı	ı	1	1	1	1	ı	ſ	1	ı	ı	ı	ı	1	1 1		ı	1	ı	ı	ı	ı	ı	1 1	1	ı	i	ı	ı	ı
	NOV.	1	1	ı	ı	1	1 4	0.0	ı	ı	i	ı	1	1	1	ł	ı	ı	ı	ı	I	ı	ı	ı	ı	1	1	t	1		1 1	ı	1	ı	1	1	ı	ı	1 1	1	1	1	1	ı	J
	ocr.	1	1	ı	ı	0.0	0.0	0.0	2.6	0.0	0.0	0.0	2.8	0.0	0.0	3.0		2.8	ı	0.0	5.6	0.0	0.0	2.5	1 4	0.0	1 4	0.0	0.0		c	•	3.1	1	0.0	3.0	0.0	1 0	0.0		2.7		1	5.5	
	SEP.	1	1	ı	1	ı	1 0	0.0	1	ı	1	1	ı	ı	ι	t	ı	1	ı	ı	ı	ı	I	ı	ı	ı	1 0	0.0	I	t	1 1	ı	1	4.6	2.6	1	1	ı	1		1	ı	ı	ł	
	AUG.	1	ŀ	ı	ı	0.0	0.0																	6.3			1	٠ ٠		1. CC	10.1		ı	ı	3.0	3.0	ω, ο, ι		14.0	3		0.0	10.4	2.1	1
ndens	JULY	1	1	1	ı	0.0	0.0	0.0	0.0	0.0	0.0	ı	3.0	0.0	0.0	0.0	2.9	0.0	5.5	2.8	0.0	0.0	0.0	0.0	19.4	8.2	12.9	14.8	0.0	0.0	0.00	150	0.0	1								0.0			7.0
Notoscopelus resplendens	JUNE	ı	ı	ı	ı																																					0.0			
snledo:	MAY	15.3	2.9	13.8	5.8	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	•	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	000		0.0	1	0.0	0.0
Notos	APR.		1	1	ı	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000			0.0	0.0	0.0	0.0	0.0			2.6	0.0	0.0	0.0
	MAR.		1	1	ı	ı		0.0		1	ı	0.0		0.0		0.0	i	0.0	ı	0.0	ı	0.0	0.0	0.0	1	0.0	1 0	0.0	0.0	0.0	1 0	٥	1	1		0.0	0.0	1 0	0.0	0		0.0	1	0.0	ı
	FEB.		ı	1	ı	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	ı	1	ı	ı	0.0	0.0	0.0	1	0.0			0.0		1	1	!	1	-	0.0	0.0	ı	ł	0		0.0	1	0.0	1
	JAN.	1 1 1	ı	1		0.0											ı	0.0	i	0.0	0.0	0.0	0.0	0.0	1	0.0	ı		0.0	ı	1 0		0.0	)	0.0	0.0	0.0	1 4	0.0	000	000	0 1	1 1	0.0	ı
	Z	110.	120.	130.	145.	70.0	90	45.	45.	80	90	30.	50.	55.	40.	50.0	65.	70.0	75.	80.	90	55.0	09	70.	75.0	80.0	85.0	40.0	45.0	65.0	0.00	0000	0.00	40.0	30.0	0.09	70.0	75.0	0.08	55.0	0.09	65.0	75.0	80.0	0.00
	STATION	80.0	80.0	80.0	80.0	83.0	83.0	93.0	97.0	100.0	100.0	103.0	103.0	103.0	107.0	107.0	107.0	107.0	107.0	107.0	107.0	110.0	110.0	110.0	110.0																	120.0			

TABLE 4. (cont.)

	DEC.		ł	1	1	1	{	1	ı	ı	ı	ı	1	1	ŀ	ı		DEC.	1	Į	i	ı	1	1	1	ı	1	ı	ł	1	i	1	ı	í	I	I	ı	ı	F	ı	į	1	ı	ı
	NOV.		1	1	i	ı	1	ı	ı	ı	1	ı	1	ł	1	ı		NOV.		1	ı	1	1	1	ı	ŧ	ı	1	ı	ı	i	ı	1	ł	1	i	ŀ	ı	1	1	ı	ı	ı	ı
	OCT.	0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0		0.0		ı		OCT.	2.6	0.0	4.4	4.0	0.0	0.0	0.0	ı	0.0	ı	0.0	0.0	0.0	0.0	0.0		2.9	i	0.0	ı	2.8	0.0	0.0			2.8
	SEP.		1	ı	1	1	ı	1	0.0	0.0	ı	ı	1	i	ı	ı		SEP.		1	i	ı	1	1	1	1	I	ı	1	1	ı	ì	ı	ı	ı	ı	ł	ı	ı	1	ı	-	ı	ı
t.)	AUG.		0.0	0.0	0.0	0.0	0.0	2.9	3.0	0.0	0.0	0.0		0.0	ı	1		AUG.		ı	ı	1	1	1	ł	ı	1	l	ı	1	1	ı	ı	ı	I	ı	ı	ı	ı	1	1	ı	1	ı
s (cont.)	JULY	2.7	0.0	16.4	2.8	0.0	20.3	10.5	0.0	0.0	0.0	0.0	2.7	2.8	5.3	2.8	sarns	JULY	1	0.0		ı	0.0	0.0	5,9	0.6	2.8	11.4	0.0	0.0	0.0	7.1		19.9	0.0	15.9	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0
lenden	JUNE	0	0.0			0.0					1	ı	1	0.0	1	ı	leucopsarus	JUNE		ł	ı	1	ı	1	ı	ı	ì	1	1	ı	ı	ı	ı	ı	1	1	ı	ı	ŀ	ţ	1	1	i	ı
Notoscopelus resplendens	MAY	0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	t	1	1	0.0	1	ı	Stenobrachius	MAY		1	1	1	7.6	50.9	0.0	8.09	42.4	1.9	5.3	17.5	1 4	0.0	17.1	0.0	0.0	24.4	18.7	50.1	23.4	36.4	74.1	3.4	18.8	16.2
oscope	APR.	0	) ) ) 	ı	ı	ı	1		0.0	0.0		2.5		2.7		1	Stenob	APR.		1	ı	ı	1	1	5.9	28.1	24.6	1	2	116.2	e	100.6	53.1	ı	ı	ı	i	ı			5.0		ı	ı
Not	MAR.	0	0.0	1	0.0	0.0	0.0	ı	0.0	2.8	ı	ı	1	0.0	1	1		MAR.		1	1	ı	!	ł	1	ł	ı	ı	ı	ı	1	ı	ı	1	ı	ı	1	ì	ı	ı	1	ı	ı	ı
	FEB.	0	0.0	1	0.0	0.0	0.0	ı	0.0	0.0	1	i	ı	0.0	ı	ı		FEB.		ı	1	ı	ı	1	1	ı	i	ŀ	1	I	í	I	I	1	ŧ	i	1	ı	ł	ŀ	1	1	1	ı
	JAN.	0	)	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	ì	0.0	0.0	ı		JAN.		ı	1	1	15.8	96.2	16.3	1	0.0			2.8			0		0.0	1	ı	ı	9.9	14.7	13.9	2.8	ı	35.4
	N	0 00	55.0	70.0	50.0	55.0	0.09	70.0	35.0	40.0	55.0	0.09	65.0	50.0	0.09	75.0		N	47.0	80.0	50.0	7.5	52.0	55.0	0.09	65.0	70.0	75.0	80.0	0.06	52.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	0.06	50.0	55.0	0.09	65.0	70.0
	STATION	120 0	123.0	123.0	127.0	127.0	127.0	127.0	130.0	130.0	133.0	133.0	133.0	137.0	137.0	137.0		STATION	50 0	20.0	53.0	73.0	60.09	0.09	60.09	0.09	0.09	0.09	0.09	0.09	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	0.79	0.79	67.0	67.0	67.0

TABLE 4. (cont.)

DEC. NOV CT SEP. AUG. Stenobrachius leucopsarus (cont.) JULY JUNE 35.6 6.8 17.4 0.0 2.8 9.2 0.0 60.4 60.1 42.1 30.2 18.0 19.4 116.8 112.9 12.9 20.0 3.0 30.4 0.0 0.0 0.0 0.0 0.0 0.0 MAY 100.9 1111.4 241.6 130.0 49.0 APR. MAR. 46.5 55.5 95.7 20.8 7.3 111.7 37.6 19.8 10.2 6.3 80.0 41.9 19.8 FEB. 2.8 36.5 18.6 3.0 4.8 JAN. STATION 

0 000000 00 10000000 000000 000000 DEC. NOV 0000000 0 000000 0 0 0000000 0 00 000000 00 0 0000000 000000000 0000000 0 0000000000 000000000 0000000000 Stenobrachius leucopsarus (cont.) 0000000000 04164761667 0.001 0.001 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0. MAR HN000K 0 0 H04 KN4 0 000K00000 KO 00000000 FEB STATION 

TABLE 4. (cont.)

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	NOV.	1111111111	NOV.	111100101100101110000
	OCT.	10000000100001000010	OCT.	2 2 3 8 8 3 5 8 8 9 8 9 8 9 8 9 8 9 9 9 9 9 9 9 9 9
	SEP.	0.00.00	SEP.	1111111111111111
ıt.)	AUG.	000000000000000000000000000000000000000	AUG.	1 1 1 1 2 2 1 1 1 2 2 2 2 2 2 2 2 2 2 2
is (cor	JULY	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	JULY	00000 W W 0000 W W 0000
copsarı	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	111000000000000000000000000000000000000
Stenobrachius leucopsarus (cont.)	MAY	5.7 0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.0	MAY	0.0000000000000000000000000000000000000
obrach	APR.	25.8 26.0 46.1 41.3 41.3 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	APR.	00 000000000000000000000000000000000000
Sten	MAR.	0.00080000111001110010	MAR.	0.
	FEB.	10000000 #0000 0 000 0	FEB.	000 0 00 0 000000
	JAN.	000000010001000110	JAN.	00 000 0 000 0 000000
	STATION	93.0 97.0	STATION	70.0 70.0 77.0 77.0 77.0 77.0 77.0 77.0 77.0 77.0 80.0

Triphoturus mexicanus (cont.)

	DEC.	0.0	t	ı	ı	ı	t		۰			0.0		i	1	ı	ı	ı		- 0			0.0				ı	0.0	1 1	0.0	1 0	0.0	0.0	1 1		1							0.0		0.0	
	NOV.	0.0	ı	ł	ı	ı	ı	1 0	0.0	0.0	0.0	2.8	0.0	i	1	ı	I	ı	1	0.0	ı	0.0	0.0	0.0	0.0	0.0	ı	10.5	1 1	0.0	ı	ı	ı	1	ı	1				0		0 0	3.1		0.0	
	OCT.	0.0	1	0.0	1	0.0	1 (	0.0	90	2.7	0.0	2.5	0.0	ı	8.6	ı	0.0	ı	0.0	2.3	0.0	0.0	3.0	5.1	14.3	7.0	i	0.0	1	0.0	1 0	0.0	1	1		1	(	20.0	0.62	0000	13.9	2.5	6.1	0.0	9.9	
	SEP.		ı	ı	ı	ı	1	ı	ı	1	I	ı	ı	ı	ı	ı	ı	ı	ı										30.5							1							59.0			
( -	AUG.	17.2	0.0	0.0		2.3	1 (	9.5	0.0	0.0	0.0	0.0	0.0	0.0	48.3	138.6	16.1	2.7	45.4	0.0	0.0	3.2	3.5	5.5	3.0	0.0	7.4	30.1	40.8	19.3	20.7	0.0	ı	1	ı	I			0 4	מי ה		S	9.1			
COULT	JULY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	35.0	9.1	3.2	0.0	ı	3.2	8.3	19.1	0.0	5.7	3.0	0.0		12.2					30.1	11.8	7.9	ı	1	ı	l	,						2.6			)
Callas	JUNE	3.0	3.0	0.0	3.1	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0	20.8	9	ゼ	9.2	0.0	2.8	0.0	0.0	0.0	0.0	2.8	0.0	59.4	0.0	5.3	8.4	29.4	1	1	I	1	l	1							2.4			
orar as men	MAY																								5.																		14.4			) )
Thuor	APR.			0.0																									19.7				ı	1	ı	1		0	0	0	0 0		0.0		0 1	b
7	MAR.	 	ı	ı	ı	1	ı	1 0	0.0	0.0	0.0	ı	1	ı	ı	ı	ı	ı	1	0.0	ı	0.0	0.0	0.0	0.0	0.0	4.5	0.0	1	2.6	1 (	7.7	ı	1	ı	1					0 4		0.0		0.0	)
	FEB.	0.0	1	0.0	1	0.0	1 0	0.0	0.0	1	0.0	0.0	0.0	ı	0.0	ı	0.0	ı	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0.0	1	0.0	1 0	0.0	1	8 1	l	1	1 4	0.0	0.0	000	0.0	0.0	0.0	0.0	1 1	
	JAN.	0.0	1	0.0	1	0.0		0.0		1	0.0	0.0	1	ı	1	ı	ı	1	ı	0.0	0.0	0.0	0.0	0.0	0.0	8	1	1	ı	1	ł	I	ı	1	1	1	1			0			0.0		0.0	
	N	60.0	65.0	70.0	75.0	80.0	85.0	90.0	35.0	45.0	50.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	0.06	28.0	32.0	37.0	45.0	50.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	90.0	1100.0	0.011	120.0	1.30.0	0.041	28.0	30.0	30.0	45.0	50.0	55.0	0.09	70.0	
	STATION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.7	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000	000	000	000	000	200	000	000	3.0	3.0	93.0	000	0.0	,

TABLE 4. (cont.)

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	NOV.	1	0.0	1 1	1	ı	ı	ı	ı	ı	ŀ			. 1	1	1	ı	1	ı	ı	l I		ı	ı	1	1	ı	1 1	1	ı	i	1	1 1	ı	ı	ı	ı	ı	î	i		
	OCT.	1	8.4	1 1	i	15.6	2.9			2.6	14.1	0.4.	T % 0 0	5 7		8.7	1	13.2	0.0	11.9	0.84	105.3	142.6	42.4	11.6	1 4	0.0	υ 1 α		4.7		13.7	1.17		78.1	48.2			5.9	1 9	0.0	
	SEP.		0	000		ŧ	ı	ı	ı	1	I	l I	1 1		ı	1	i	1	ı	1	1 1	1 1	1	ı	ı	1	1	1 1	ı	1	i	ı	1	1 1	1	1	1	i	ı	ı	ı	ı
( )	AUG.			25.8	0 1	11.1	29.2	14.7	21.8	9.2	6.4	15.2	32.3	14.2	23.0	19.4	12.2	27.0	46.9	29.1	40.0	14°4	94.9	34.0	83.2	44.8	44.9	15.5 V. C.	15.7	0.0		13.9							3,3		12.9	7.67
(cont.)	JULY			000		0.0				2.9		1 0	47.0	0.0	28.0	30.9			0.0	3.0	20 4		31.1	69.7	127.2			1000			ı	ı	1	7 10	56.0	11.4	3.7	18.7		14.2		4/.8
icanus	JUNE	2.8	0	7.0		2.5	12.1	9.9	24.9	3.2	19.I	20.5	1001	10.0	20.00	22.5	0.0	0.0	11.0	5.8	8.4.0	24.00	16.2	16.4	12.1	30.5	6.0	17.9	13.0	3.0		0.0					113.6	-				
Triphoturus mexicanus	MAY	12.1	2.7	12.5	# • • [	0.0	0.0		13.9		14.7	0.0	, n	000	000					0.0		0.0		. 6	23.7	29.7	15.3	15.1	000	9.9	1			43.4	24 1	10.0	38.4		0.0	3.1	3.1	11.9
.iphotu	APR.	0.0	11.4		) i	1	0.0	•	•	2.9	0	1 4	0.0	20.00	26.00	0.0	9.0	2.8	0.0	0.0	0.0	ກຸຕ	2.7	8.5	0.0	8.4	34.1	85.8	11.0	200	1						23.8		0.0	5.7	2.6	0.0
TI	MAR.		5,3	0		0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	1	1	ı 1	- 1	1	0.0	0.0	0.0	13.0		2.4	0.0	1	1	1	1 1	ı	ı						0.0	1	0.0		0.0	ı
	FEB.		0.0	1 0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 9	0.1	-		0.0	0.0	0.0	0.0	0.0		000	0.0		0.0	10	0.0	0.0	1	0.0	0.0				0.0	1	0.0	ı	ı	ı
	JAN.		0.0	1 0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 0	0.0	0	٠	0.0		0.0	0.0	1 0	•	0 1	0.0	1	0.0	1 0	0.0	0.0	1	0.0	0.0	0.0	0.0		0.0	1	0.0	1 4	0.0	ı
		75.0	80.0	85.0	0.0	30.0	32.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	0.00	85.0	90.0	29.0	30.0	35.0	40.0	40.0	55.0	60.0	65.0	70.0	75.0	0000	0.06	50.0	30.0	35.0	40.0	45°C	20.00	0.09	65.0	70.0	75.0	80.0	85.0
	STATION		_	93.0		` -	_			_			_	_	_				_	_	_							_					_		٠.			0	0	0	0	_

DEC. NOV DO 225.1 111.4 13.5 39.8 SEP 66.6 1204.5 1787.3 (cont.) 70.5 0.05 JULY Triphoturus mexicanus 098 APR. 090 FEB. JAN. STATION 

TABLE 4. (cont.)

	DEC.	
	NOV.	
	OCT.	31.3 31.3 31.3 31.3 5.5 6.0 6.0 6.0 6.0 7.7 7.7 10.0 10.0 10.0 10.0 10.0 10.0
	SEP.	88.68 1.1.1.1.1.1.1.1.2.2.2.2.2.2.2.2.2.2.2.2
•	AUG.	22229 22229 10650 10650 10650 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 10660 106000 106000 106000 106000 106000 10600 1
(cont.)	JULY	23.0 23.0 10.0
icanus	JUNE	37. 37. 37. 37. 37. 37. 37. 37.
rus mex	MAY	13.00
Triphoturus mexicanus	APR.	222 283 283 284 284 285 286 310 310 310 310 310 310 310 310 310 310
T	MAR.	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	FEB.	0.0000000000000000000000000000000000000
	JAN.	
	STATION	117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.0   117.0   40.
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TABLE 4. (cont.)

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TABLE 4. (cont.)

FEB. MAR. APR. MAY JUNE JULY AUG. SEP.					iphotu	Triphoturus mexicanus	cicanus	(cont.	$\sim$ $1$				
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
0.0	5.0	0.0	1	ı		1	1	ı	9.2	1	1	ı	1
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0	0.0	1	1		ł	1	ı	17.4	1	ı	i	ı
JAN. FEB. MAR. APR. JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichty Spp. 10.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0	ı	ı	ı		1	1	ı	21.5	ı	ŧ	ı	ı
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichtys Spp.  Diogenichtys	5.0	0.0	ı	ı		ı	ı	ſ	2.2	i	ı	ı	ł
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenicity Spp. 17.7  JAN. FEB. OCT. NOV. D  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	2.8	ı	ı	۰	1	ı	ı	0.0	ı	1	ı	ı
000	0.0	0.0	ı	ļ		ı	ı	ı	2.1	ı	ı	1	ı
000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.0	0.0	ì	ı		ı	1	1	6.3	ı	1	i	i
Diogeni chthys Spp.  Diogeni c	0.0	0.0	ı	ı		1	ı	1	48.5	ı	1	1	ı
0.0	5.0	0.0	ı	ı		ŧ	ı	ı	14.6	1	1	1	ı
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichthys Spp.  JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	0.0	ı	1		ı	ı	ı	1.0	1	1	i	ı
Jan. Feb. Mar. Apr. May June July Spp.  Jan. Jan. Feb. Mar. Apr. May June July Spp.  Jan. Feb. Mar. Apr. May June July Spp.  Jan. Feb. Mar. Apr. May June July Spp.  Jan. July Spp.  Jan. Feb. Mar. Apr. May June July Spp.  Jan. July Spp.  Jan. Feb. Mar. Apr. May June July Spp.  Jan. July	0.6	0.0	ı	ı	ı	1	i	ı	4.0	1	ı	i	ı
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichtays spp.  JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	5.0	0.0	ı	ı	í	ł	ı	1		1	1	1	1
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichthys Spp.  JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	0.0	ı	ı	ı	ı	1	ı	3.0	ı	1	1	1
JAN. FEB. MAR. APR. MAX JUNE JULX AUG. SEP. OCT. NOV. D  10.0	5.0		ı	ı	ı	ı	ı	1		1	1	ŧ	1
JAN, FEB. MAR. APR. JUNE JULY AUG. SEP. CCT. NOV. D  JAN, FEB. MAR. APR. JUNE JULY AUG. SEP. CCT. NOV. D  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			ı	1	ı	1	ı	ı		1	1	(	
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  Diogenichthys spp.  JAN. FEB. Oct. MAY JUNE JULY AUG. SEP. OCT. NOV. D  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			. 1	. 1	1	1							
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JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  1.00	0.00	0.0	1		1	ı	i	ı	21.8	ì	ı	i	I
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  1.7	0.0	0.0	ı	ı	í	1	ı	ı	2.0	ı	ı	ı	ì
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  1.0	0.9	0.0	ı	ı	1	ł	ı	ı	1.7	ı	ı	ı	1
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. D  0.0					Di	ogenich	thys s	.dc					
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00	0.0	ı	1	0.0	0.0	1	0.0	1	1	2.9		1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	0.0	0.0	1	0.0	0 0	0.0	2.5	0.0	1	0	0.0	0
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	200							•	000	1	0 1	1	1
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	0.0	1	0.0		7.8	0.0	0.0	0.0	0.0	ı	0.0	1	I
	5.0	0.0	0.0	- 0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1	0.0		0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1	0.0		0.0	0.0	0.0	0.0	3.0	0 0	0.0	0.0	0.0
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0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5.0	1	ı	ı	0.0	0.0	0.0	0.0	0.0	8.1	ı	ı	ı
2.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	5.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1	0.0	ı	ı
2.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0	0.0	0.0		0.0	0	0.0	0	3.2	1	0	1	1
		200								1		1	1
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0 0.0 2.6 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	ı	0.0	ı	1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	0.0	2.6	1	0	0	0			ı		1	1
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0	9 0						0 0				
	0.0	0.0	0.0	1 4	0.0	0.0	0.0	0.0	3.1	ı	0.0	ı	i
0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ı	2.8	1	1
	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1	2.7	1	ı

	DBC.	
	NOV.	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
	OCT.	2 0 0 0 0 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SEP.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	AUG.	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
cont.)	JULY	004000000000000000000000000000000000000
spp. (cont.	JUNE	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Diogenichthys	MAY	
Diogeni	APR.	000000000000000000000000000000000000000
	MAR.	
	FEB.	0 00 000 00000 000 00000000000000000000
	JAN.	
	STATION	103.0 10

TABLE 4. (cont.)

	DEC.	ı	ı	1	ı	1	ı	ı	ı	ł	ı	ı	1	1	0.0	ŀ	ı	ı	ı	1 (	0.0	0.0	ı	ı	1 1	1	0.0		ı	1	ı	ı	L	0.0	0.0			0.0	0	90	1	0.0	0.0	0.0	0.0
	NOV.	1	ı	1	1	ł	1	ŧ	ı	ı	ı	ı	ı	1 -	0.0	ı	ı	ı	ı	1 (	0.0	0.0	I	ı	1	ı		0 1	ı	1	1	1	1	2.7	0.0	1 0		0.0	1	ı I	1	0.0	0.0	0.0	0.0
	OCT.	4.1		0.0	0.0	0.0	ı	0.0	0.0	1	ı	0.0	1	0.0	0.0	ŀ	ŀ	ı	ı	1	0.0	0.0	1 9	0.0	ŧ i	1 0	•	•	0.0	)	0.0	ı	3.7	0.0	0.0	1 0	0.0	0.0	1 0	0 1	1	0.0	2.9	0.0	0 . 7
	SEP.		ı	!	ı	1	ı	1	ı	1	1	1	1	ı	ı	1	F	ı	ı	ı	ı	t	ı	t	i	1	1 1	ı	1	1	i	1	1	0.0	0.0	2.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0
	AUG.		ı	1	ı	1	ı	ı	1	ı	t	ı	ı	ı	0.0	ı	ı	1	ı	1	0.0	0.0	0.0	0.0	ı	1 0			0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ı	2.6	0.0	0.0	0.0
icus	JULY		0	0.0	. e.	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0	ı	ı	ı	ı	ı	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0,0	70	٥	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0
Diogenichthys atlanticus	JUNE			1	ı	1	ı	1	1	3,3	1	0.0	2.4	2.9	0.0	1	ı	1	ı	ı	0.0	3.0	3.0	8,6	0.0	0.0	0.0	0.0	۳. ۵	אינ	24.6	0.0	0.0	0.0	0.0	0.0	0.0	2.9	t	1	1	0.0	0.0	0.0	0.0
ichthys	MAY		6 3	000	0.0		2.7	3.0	12.0	0.0	0.0	3.2	0.0	2.9	0.0	14.3	39.8	2.8	2.8	5.8	0.0	0.0	3.0	ທີ່	20.00	2.9	90	•	10.0	7.07	, m	3.0	8.9	0.0	0.0	3.1	3.0	0.0	3°T	0.0	0 0 0	0.0	0.0	0.0	7.7
Diogen	APR.		. 1	34.1	1	2.3	1	0.0	2.9	0.0	1	0.0	ι	0.0	0.0	1	ı	1	1	ı	0.0	0.0	0.0	0.0	0.0	0.0	34.9	200		000	9.0	0.9	0.0	0.0	5.7	1 1	0.0	0.0	0.0	0.0	1 1	- 1	0.0		
	MAR.			1	1	1	ı	1	ı	ı	1	i	ı	1	1	ı	ı	1	t	ı	ı	ı	ı	i	1	f	I		!!		- 1	ı	ı	0.0	0.0	0.0	0.0	0.0	1 (	0.0		0.0	0.0	4.7	0.0
	FEB.				1	f	ı	0.0	1	1	1	!	ı	ı	0.0	ı	1	1	1	1	0.0	0.0		0.0	ı	1	2.6	۷۰۶	1 0	0.0	0.0		0.0	0.0	0.0	1 :	0.0	0.0	1 '	4.0	1 1	0.0	0.0	t	0.0
	JAN.		ı	0		0.0		0.0	)	ı	1	1	1	ı	2.8	ı	1	ı	ı	1	2.9	0.0	ı	0.0	ı	1	0.0	ı	! !		- {	ı	1	0.0	ı	1	1	ı	ı	ı		0.0	0.0	0.0	0.0
		0 00	0.00	0000	0.00	70.0	75.0	70.0	80.0	65.0	75.0	80.0	85.0	0.06	55.0	0.00	10.0	20.0	30.0	45.0	47.0	0.09	65.0	70.0	75.0	85.0	90.0	60.0	20.0	75.0	0.00	85.0	0.06	55.0	0.09	65.0	70.0	80.0	85.0	90.0	2000	45.0	60.09	70.0	0.08
	STATION		20.00	03.0	0.20	70.0	70.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	80.0	80.01	80.01	80.01	80.01	80.01	82.0	83.0	83.0	83.0	83.0	83.0	83.0	8/.0	0.78	0.70	0.78	87.0	87.0	90.06	0.06	0.06	0.06	0.06	0.06	90.06	0.00	0.00	93.0	93.0	93.0

12.1 DEC. 111111 NON 1 1 1 1 1 1 1 0.088000 707 SEP. SEP. 111111 00000H000K040000K0M00000H0M0000 -00000m AUG. 000000 Diogenichthys atlanticus (cont.) JULY 000000 JULY laternatus 1000000 JUNE JUNE 000000 000000 Diogenichthys 0000000 MAY MAY 0000000 000000 APR. APR 1000000 000 00 0 0 0000000 00000 0100000 1001111101111000100101010100000000 000 00000 0 00000000 000000 FEB. FEB 000000 000 0 0 9 00006 0 8000860 0 00000 0000 1110010101010100001000010000 000000 770.0 770.0 332.0 40.0 50.0 1100011 335.0 740.0 740.0 750. STATION STATION 0000000 97. 003. 07. 07.

TABLE 4. (cont.)

	DEC.	ı	1	ll	- 1	1	ı	ı	ı	i i	1	ı t	I	ı	ı	ı	ł		ı	1	ı	1 1	1	1	!	ı		ı	ı	ı	1 1	ı	ı	1	1 1	1	1	1 1	ı
	NOV.	ı	ı	1 1	- 1	1	ı	ı	ı	1		1 1	ı	ı	ı	ŧ	ı	1 1	ı	1	1	i 1	1	ı	ı	l	1 1	ı	I	ı	l i	1	ı	ı	1 1	ı	1	1 1	t
	OCT.	0.0	1 0	χ) Ι 4'	0.0	)	0.0	0.0	0.0	0.00	0.00		) ) ) 	12.4	ł	2.8	1 0	0.0	22.0	35.3	0.0	78.0		0.0	1 0	48.3	39.9	1	1	0.0	0.0	0.0	12.9	2.7	26.0	1017	2.7	0	)  -  -
	SEP.	ļ	ı	1 (	1	1	ı	0.0	0.0	1	1	1 1	ı	ı	1	ı	ı	1 0	000		ı	1 1	ł	ı	ı	ı	1	5.5	44.1	0.0	0.0	3.1	)	ı	1 1	ı	ı	1 1	ı
t.)	AUG.	3.2	0.0	000	0.0	0.0	9.1	2.7	0.0	0.0		15.7	15.8	6.3	0.0	3.2	ı	ע ו	90	0.0	0.0	J. C	0.0	6.5	0.0	6.4	1	1	1	0.0		0.0	0.0	6.5	0.0	0.0	0.0	20.0	) ) 
s (cont.)	JULY	5.9	ໝຸດ	n c	000	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	7.9	5.5	38.4	2.2	4.0	000	11.4	2.7	000	3.0	15.2	37.9	20.9	2.9	1	ı	0.0		000	0.0	0.0	000	0.0	3.0	0.0	0.0
ernatu	JUNE	0.0	0.0	0.0	000	2.0	0.0	0.0	0.0	0.0	7.7	000	0.0							0.0							2.0	1				0 0					3.1		
Diogenichthys laternatus	MAY	0.0	ر و و	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	2.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1				0 0					0.0		
genicht	APR.	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	ı	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	2.5
Dio	MAR.	0.0	1 0	0.0	0.0	) ) ) )	1	0.0	0.0	0.0	0.0		0.0	0.0	ı	0.0				0.0		0.0	0.0	0.0	1 0	0.0	l I	ı	1	0.0	•	27.4	16.7	2.8	000	0.0	2.8	c 1 C	) 
	FEB.	0.0	í	1 1	1	1	1	0.0	0.0	0.0	0.0	12.5	9 8	0.0	1	0.0	1 0	3.0	20.0	5.1	5 8 9	000	0.0	0.0	ı	1	1 1	1	ı	0.0			2.7	11.7	2.8	14.1	2.8	1 1	1
	JAN.	0.0	1 0	0.0	0		0.0	0.0	5.5	2.0	4.0	. C	) ) ) )	0.0	ı	2.8	1 0	0.0	٥١	2.1	0.9	7.7	• 1	5.1	1 0	0.0	12.0	1	1	1,0		200	, m	0.0	22.6	" " "	2.6	c 1 C	) •
	STATION	0	107.0 65.0	00	00		0	0	0	0	<b>&gt;</b> 0	110.0 50.0	0	0	0	0	0	00		113.0 45.0	0	00	00														117.0 70.0		

	DEC.	
	NOV.	
	OCT.	24.4 88.5 10.0
	SEP.	25.5 25.7 25.7 495.5 115.4 117.8 117.8 117.8 117.8
t.)	AUG.	1000 1000
s (con	JULY	2 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
ternatu	JUNE	2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Diogenichthys laternatus (cont.)	MAY	221 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
genich	APR.	13.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Dic	MAR.	200.00 200.00
	FEB.	11.50 10.00 10
	JAN.	2.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
	NC	0.000000000000000000000000000000000000
	STATION	1117 120000

	DEC.	1111	111	1111	1-1	1 1	1 1	ii	1 1 1	1 1	1-1	1 1 1	1-1	1 1 1	1-1	1 1	1 1	1	1 1	I
	NOV.	1111		1111	1-1	1 1 1	1-1	1-1	1 1 1	1 1	1-1	1 1 1	1-1	111	1 1	1 1	1 1	1	1 1	1
	OCT.	88.2	0000	8.1 0.0 7.61	22.5	1 1 1	1-1	1 1	1 1 1	ł 1	1 1	1 1 1	1 1	1 1 1	1.1	1 1	1 1	1	1 1	ı
	SEP.	11116	0011	1 1 1 1	1-1	1 1 1	1-1	1-1	1 1 3	1 1	1-1	1 1 1	1 1	111	1.1	1 1	1 1	1 1	1 1	ı
it.)	AUG.	0.0	0.0	0000	1 1	0.0	0.0	11.6	0 0	0.00	13.5	33.0	4.0	7.6		4.0	11.0	9.2	55.5	9 9
s (con	JULY	0.0 11.8 84.6 42.3		122.5	16.5	บ I I 4.	1 1	1.1	111	1-1	1 1	1 1 1	1-1	11.		1 1	1 1	i i	1 1	ı
ternatu	JUNE	11116	2000	3.0	1.1	1 1 1	1-1	1-1	111	1 1	l l	1 1 1	1 1	1-1		1 1	1	l I	1 (	ı
thys la	MAY	1111	0000	19.8	1 1	1 1 1	1 1	1 1	111	1-1	1 1	1 1 1	1 1	1 1	1 1 1	1 1	1	1 1	1 1	ı
Diogenichthys laternatus (cont.)	APR.		70.1 15.9	21.6	2 1 2 1 2 1 2 1 2 1	2.8	500	17.5	66.2	2 12	15.3	0.0	0.0	14.2	0.07		1	1 1	1 1	1
Dic	MAR.	1	0.0 11.8 29.3	1881	1 1 1	1 1 1	1-1	1-1	1 1 !	111	1-1	1 1 1	1 1	1 1	1 1 1	1 1	1 1	1 1	1 1	1
	FEB.	1	0000		1 1 1	1 1 1	1 1	1-1	1 1	111	1-1	1 1 1	1 1	1-1	1 1 1	1 1	1 1	1 1	l I	1
	JAN.	14.8	2.27	20010	0.0	000	000	0.0	000	000	000	2.1	0.0	000	25.0	7.0	000	0.0	2.0	2.0
	N	55.0 60.0 65.0 70.0	30.00	0000		3000		50.0	3200	45.0	55.0	70.0 20.0	35.0	40.0	55.0	19.0	40.0	50.0	55.0	16.0
	STATION	133.0	134.0	137.0	137.0	137.0	140.0	140.0		143.0	143.0	143.0	147.0	147.0	147.0	150.0	150.0	150.0	150.0	153.0

TABLE 4. (cont.)

	DEC.		t	ı	I	ı	ı	ı	1	1	ı	ı		DEC.	1 1	ı		DEC.	-	ı	ı	ı	1 1	ı	ı	í	ı	1	1 1	ı	-	ı	i	1 1	1	1	1 1
	NOV.		ľ	1	1	ì	1	1	1	ı	ı	ı		NOV.		ı		NOV.	1	1	l	ı	1 1	ı	í	1	ı	1	1 1	1	1	1	ı	1 1	ı	i	1 1
	OCT.		1	1	ı	f	ı	t	ı	i	ı	ı		OCT.		ı		OCT.	1	2.8	1 0	0.0	0.0	0.0	1	2.8	1 (	3.0	l 1	0.0		0.0	0.0	0.0	0.0	0.0	10
	SEP.	1	ı	ı	ı	1	ı	1	1	1	ı	ı		SEP.		0.0		SEP.	1	1	ı	ı	}	1	ı	ł	ı	ı	1 1	1	ı	1	0.0	1 1	ı	1	1 1
(•:	AUG.	9.4		ı	1	ı	ı	1	ì	1	ı	1		AUG.		0.0		AUG.	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	٥,٠	10	0.0	1	0.0	000	0.0	2.7	0.0
(cont	JOLY	1	i	ı	ı	ł	1	1	ı	t	ı	ı		JULY		0.0	Ins	JULY	0.0	0.0	0.0	0.0	0.0	, ru	2.9	5.5	2.8	200	000		2.8	4.8	0.0	000	0.0	3.0	0 0
ernatus	JUNE	,	ı	ı	ı	Į	1	1	1	ı	ŀ	1	rissoi	JUNE		0.0	tenuiculus	JUNE	6.1	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	y c		0.0	0.0	0.0	0.0	0.0	0.0	0.0
hys lat	MAY	ı	1	ı	ı	i	1	ı	1	1	ı	1	Electrona	MAY	14.5	0.0	Conichthys t	MAY	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	3.0	0.0	000	, m	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diogenichthys laternatus (cont.)	APR.	ŀ	i	ı	ı	ı	ı	1	ı	1	ı	ı	Ele	APR.		2.8	Conic	APR.	0.0	0.0	200	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000		0.0	1	0.0	0.0	0.0	0.0	0.0
Diog	MAR.	,	1	ı	1	ı	ı	1	1	1	ı	ı		MAR.		I		MAR.	ı	0.0	1 0	0.0		0.0	1	2.4		0.0				0.0	0.0	000	3.5	0.0	0.0
	FEB.		1	1	ı	1	1	ı	ı	1	1	1		FEB.		1		FEB.	ı	0.0	1 0	0.0	000	0.0	. 1	ı	ı			0.0	,	0.0	ر. د.	0.0	0.0	0.0	9.0
	JAN.	0.0	4.7		29.7		2.5		2.3		2.4	18.1		JAN.		ı		JAN.	1	0.0	1 0	200	0.0	0.0		0.0		0.0	1 1	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	STATION	153.0 25.0									157.0 55.0			STATION	80.0 120.0			STATION																	3.0		113.0 65.0

TABLE 4. (cont.)

	DEC.	ı	1	ł	1	1	1	1	ı	1	ı	1 1		ı	ı	ı	1	ı	ı	ı	ı	1	ı	ı	1	1	t	ı	ı	ı	I	ı	ı	ı	1 1	1	1	1	1	ı	ı	1	1	1	ı	1 1	
	NOV.	i	1	ŀ	1	i	1	1	ı	1	ı	1 1	l i	1	ı	ı	ı	ı	ı	ı	1	1	ı	1	1	1	ı	ı	ı	ł	1	ı	í	ı		1	ı	1	ı	ı	ı	1	1	ı	ı	1 1	
	OCT.	3.0	3.1	0.0	0.0	0.9	2.7		0			•		0.0	1 4	0.0	1	2.7	0.0	0.0	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	11.0	0.0	0.0	1 4	0.0	000	•		2.8		2.8	0.0	0.0	0.0	0.0	0.0	000	•
	SEP.	1	ı	ı	1	1	1	1	1	1	0	0.0	ı	ı	ł	ı	1	1	ı	0.0		ı	1	1	ı	ı	2.7	2.6	0.0	ı	ı	ı	ı		0.0		1	1	1	ı	1	1	1	1	ı	1 !	
	AUG.	6.4	1	9.7	0.0	3.0	0.0	0.0	2 2						0.0	0.0	0.0	0.0	ı	0.0	ı	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	5.6	0.0	0.0	0.0	2°C	10	0.0	7.4	3.6	0.6		2.2	0.0	1.7	0.0	0.0	0.0
(cont.)	JULY	0.0	0.0	0.0	0.0	0.0	0.0	2.3				0.0	0.0	0.0	0.0	0.0	J I	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	2.9	2.9	2.6	0.0			0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
iculus	JUNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0				000	0.0	0.0	3.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	2.7	11.5	0.0	0.0	7.9	2.9	30.4	0.0	0.0	5.7	0.0			0.00	5.7	20.2		0.0	0.0	0.0	ı	1 1	l
Gonichthys tenuiculus	MAY	0.0	0.0	0.0	0.0	0.0	0.0	0.0			000			0.0	0.0	2.8	1	2.6	5.9	0.0	0.0	17.8	2.9	11.2	0.0	7.1	0.0	0.0	0.0	10.8	5.1	0.0	2.7	m ،	1.0		, r.	4.4		ı	0	0.0	0.0	1	1	1	ı
nichth	APR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		000	0.7	0.10	7.0	0.0	0.0	0.0	7.7	0.0	0.0	ı	4	ı	1	1	ı	ı	ı	ı	ı	1	ı	ł	ı	1 (	0.0	0.0		200	)	ı	2 8	4.0	3.4	0.0	0.0	9./	ı
COS	MAR.	0.0	1	0.0	0.0	2.9	0.0	0 1	0	0 1	(	000		0.0	0.0	0.0	1	3.0	0.0	3.0	0.0	0.0	0.0	0.0	1	ı	0.0	0.0	0.0	0.0	3.1	0.0	1	1 (	0.0	0.0	10	000	) ) ) )	1	0	14.8	3.0	6.2	ı	1	ı
	FEB.		ı	0.0	0.0	0.0	0.0	0 1	!			٥٠					ı	2.9	0.0	1.4	0.0	0.0	0.0	3,5	1	ı	2.9	0.0	2.9	2.7	3.0	0.0	ı		0.0					ì		0.0			ı	ı	ı
	JAN.	0.0	0.0	0.0	8.5	0.0	0.0		0		0.0		7.0	9.7	1 0	0.0	\$	0.0	8,5	0.0	0.0	ì	1	0.0	1	0.0	0.0	0.0	0.0	2.6		0.0			υ. 					ł				2.3		6.3	ı
	7	80.0	0.09	45.0	55.0	0.09	70.0	75.0	0.00		0.00	40.0	0.00	60.0	65.0	70.0	75.0	80.0	0.06	42.0	45.0	50.0	55.0	60.09	65.0	70.0	34.0	40.0	45.0	50.0	55.0	0.09	65.0	70.0	35.0	0.04	55.0	0.09	65.0	70.0	35.0	40.0	45.0	50.0	55.0	60.0	0.01
	STATION	113.0	113.0	117.0	117.0	117.0	117.0	117.0	0.711	00/17	0./11		120.0									123.0	123.0	123.0				7.		7.	7.	127.0	7.	127.0	130.0	130.0	130.0	130.0	130.0	130.0	133.0	133.0	133.0	133.0	133.0	133.0	133.0

(cont.)
tenuiculus
Conichthys

	DEC.	1111	1111	1 1	1 1 1	1 1 1	1 1	1-1	1 1	1 1	1 1	1	1 1	1-1	t		DEC.	0.01111111
	NOV.	£ 1 Í 1	1111	1 1	1 1 1	1 1 1	1 1	1-1	1 1	1 1	1 1	ı	1 1	( )	ı		NOV.	1111111
	OCT.	00000	0080	1 1	1 1 1	1 1 1	1.1	1 1	1 1	1 1	1 1	ı	5 1	1 1	1		OCT.	00022000
	SEP.	000	1111	1 1	111	1 1 1	1 1	1 1	1 1	1 1	1-1	ı	1 1	1 1	ı		SEP.	000000000000000000000000000000000000000
,	AUG.	00.00	00   1	0.0	0.0	000	0.0	2.3	0.0	0.0	0.0	0.0	l I	1 1	ı		AUG.	0000000
(conc.	JULY	00000	0000	0.0	1 1 1	1 1 1	1 1	1 1	1 1	1 1	1 1	ı	1 1	l I	ı		JULY	00000000
caras	JUNE	00000	0011	1 1 :	1 1 1	1 1 1	1 1	1 1	1 1	1 1	1 1	1	1 1	1 1	ı	m spp.	JUNE	0000000
consciring tenusculus	MAY	0000	2.5	1 1	1 1 1	1 1 1	1 1	1 1	1 1	1 1	1 1	ŀ	1 1	1 1	1	dds mnudobhn	MAY	600000000000000000000000000000000000000
nicutu	APR.	00000	9000	2.8	2.5	22.6	0.00	0.0	0.0	5.7	160		1 1	1 1	1		APR.	2000000
3	MAR.	07.000	۲ ا ا ۱ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	1-1	1 1 1	1 1	1.1	1 1	1 1	1 1	1-4	ı	1 1	1 1	ı		MAR.	0.000.000.000.0000.00000000000000000000
	FEB.	00000	0011	1 1	1 1 1	1 1 3	1 1	1 1	1 1	1 1	1 1	1	1 1	1 1	ı		FEB.	000 000
	JAN.	000086	2000	000	000	1.9	1.7	4.3	0.0	2.1	4.0	2.4	2.3	2.6	2.5		JAN.	1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	N	35.0	40.0 45.0 70.0	35.0	45.0	55.0	40.0	55.0	35.0	45.0	55.0	45.0	30.0	45.0	55.0		N	120.0 90.0 80.0 80.0 70.0 80.0
	STATION	134.0 137.0 137.0	137.0 137.0 137.0 137.0	137.0	140.0	140.0	143.0	143.0	147.0	147.0	147.0	150.0	153.0	157.0	157.0		STATION	90.0 100.0 103.0 107.0 110.0

	DEC.	ı	1	1	1	ı	1	ı	ı	ı	ı	1	1	I	ı	ı	ı	ı	ı	ı	ı	1	ı	ı	ı	1 1	1		1	ł	ı	ı	ı	ı	1	ı	ı	ı	ı	ı	ł	ı	ı	1	ı
	NOV.	ł	1		ı	ı	ı	1	1	ı	1	ı	1	ı	ι	ı	ı	ı	ı	ı	1	1	ı	ı	ı	1 1		1 1	ı	1	1	ı	ı	ı	ı	ı	ı	ı	ı	i	ı	ı	1	1	ı
	OCT.	2.9	5.4	0		3.0	5.4	0.0					ı	3.0	0.0	0.0	0.0	0.0	2.8	1 (	0.0	0.0	0.0	0.0	0.0	0.0	0 4	100	0.0	0.0	0.0	1	ı	ı	1	ı	1	ı	ı	ı	ł	1	ı	ı	ı
	SEP.	ı	1 1	1 1	ı	1	ı	ı	ı	0.0	1	1	ı	1	0.0	0.0	1	ı	ı	ŝ		2.6	ı	1	l	1 1	1	1 1	ŀ	1	1	t	1	ı	ı	ı	ı	ı	ı	1	1	ı	ı	ı	ı
	AUG.	0.0	0.0		200	0.0		0.0	ı	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	7.4	2.4	1.3	0.0	9.9	6.1	1.7			7.6		0.0	ı	0.0	0.0	0.0	4.7	0.0	4.0	0.0	2.1	0.0	1.9	0.0	3.7	4.5	7.6
nt.)	JULY	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	8.8	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000				0.0	0.0	I	ı	ţ	ı	ı	1	ı	ı	ı	ı	ı	ı	i	1
Hygophum spp. (cont.	JUNE		0.0																							1	I			0	ı	1	I	1	1	ı	ı	1	1	t	t	ı	ı	ı	ı
s mnydo	MAY	0.0	0.0		0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7	0.0	ı		0.0			i	1	ı	C   C	000	) • • I	1	ı	ı	ı	ı	i	ı	ı	1	1	ı	ı	ı	ı	ı
Hygo	APR.	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	1	1	1	ı	1	0.0		10.8			1	1	0.0	8.0	0.0	0.0	2.6	C • 7	0		3.5	12.4	0.0	8.7	10.3	0.0	21.2	0.0	3.0	0.0	0.0	0.0	0.0	1	1	1
	MAR.	0.0	0.0	0		0.0		0.0	0.0			1	1	ı	0.0	0.0	9.1	0.0	0.0	ı	ı	0.0	35.5	0.0	0.0	ı	1		000	0	1	1	1	ı	ı	ı	1	1	1	1	ı	ı	ı	I	ı
	FEB.	0.0	0.0	0	9 1	i	1	0.0			0.0		ì	ł			0.0	. 0		1			0	0.0	0	I	I				1	1	1	t	ı	J	I	I	1	ı	ı	1	ı	1	t
	JAN.	0.0	0.0	1 0			2.5			0.0		0.0		0.0	0.0	0.0	0.0	0.0	2.0	1		- 6				0.0				2.1												4.9		2.7	4.4
	STATION	1	13.0 50.0																																										
	STA	113	113	113	1117	1117	117	120	120	123	123	123	127	127	130	130	130	130	130	130	130	133	133	133	133	133	133	133	127	137	137	140	140	140	140	147	147	147	147	147	147	147	150	150	150

TABLE 4. (cont.)

	DEC.	111111	DEC.	
	NOV.	11111	NOV.	
	OCT.	111111	OCT.	000010100010100000000000000000000000000
	SEP.	111111	SEP.	2.0000000000000000000000000000000000000
	AUG.	6.1	AUG.	000000000000000000000000000000000000000
t.)	JULY		JULY	
Hygophum spp. (cont.)	JUNE		JUNE	
Is wnydo	MAY	mnųdobi	MAY	000000000000000000000000000000000000000
Hygo	APR.	H.	APR.	
	MAR.	111111	MAR.	
	FEB.	111111	FEB.	00000 010 0000 000 0000 0000 0000 0000 0000 0000
	JAN.	0.0 0.0 1.2.8 1.4.9	JAN.	0.0000000000000000000000000000000000000
	Z	50.0 60.0 40.0 115.0 80.0	2	88888888888888888888888888888888888888
	STATION	150.0 150.0 150.0 153.0 157.0 157.0	STATION	100 100 100 100 100 100 100 100 100 100

TABLE 4. (cont.)

TERE. MAR. ARR. MAY JUNE JUNY AUG. SEP. OCT. NOV. D  0.00 0.00 0.00 0.00 0.00 0.00 0.00	FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV.  0.00					Hygopi	Hygophum atratum		(cont.)					
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
280 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	i		0.0	0.0	ı	0.0		0.0			0.0	1	1
2 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0.0		1 1							1 1	1 2
0.00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			0-0	0.0	1	0.0		5.7		ı	0.0	1	ı
7.9	7.9			0.0	0.0	ı	0.0		0.0		ı	0.0	ı	ı
28.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00	00.00			1	ı	1	0.0		5.8		ı	1	1	ı
00000000000000000000000000000000000000	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0			1	ı	ı	5,5		7.9		ı	0.0	ı	ı
000 000 000 000 000 000 000 000 000 00	000 000 000 000 000 000 000 000 000 00			1 -	1		1	1 '	1		F	1 4	t	ŧ
00000000000000000000000000000000000000	00.00 0.00 0.00 0.00 0.00 0.00 0.00 0.			0.0	0.0		0.0	4.8	0.0		0.0	0.0	ı	ı
000 000 000 000 000 000 000 000 000 00	000 000 000 000 000 000 000 000 000 00			0.0	0.0	. 0	0.0	0.0	0.0		0.0	0.0	ı	i
000 000 000 000 000 000 000 000 000 00	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			0.0	0.0		0.0	0.0	0.0		0.0	3.1	1	1
000 000 000 000 000 000 000 000 000 00	00.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.			0.0	0.0		0.0	0.0	0.0		0.0	0.0	1	1
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00			0.0	0.0	- 4	0.0	0.0	0.0		1	0.0	1	1
28.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	0.00				0		0.0	0	0		ş		1	١
0.00	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		0		000	٠					ł		t	ı
0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			0.0	6.7		0.0	,	•					
0.00	0.0		ı	ı	ı	ı	1	0.0	0.0		1		1	1
0.00	0.00			1		1	1	0.0	2.5		ı	0.0	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0			0.0		10.1	0.0	0.0	0.0		ı	0.0	ı	ı
2.6	2.6			0.0		3.1	ŀ	0.0	0.0		ı	0.0	ı	1
3	3			1	Į	2.6	ı	1	0.0		ı	2.5	ł	ı
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			ı	ı	0.0	ı	1	0.0		1	0.0	1	ı
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			1	1	1	ı	1	2.7		ı	1	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		ı	1	ı	1	1	1	8,5		ı	0.0	1	ı
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0		0.0	0.0	5.9	0.0	0.0	0.0	0.0		ŧ	0.0	1	ı
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		0.0	0.0	0.0	8.0	0.0	0.0	0.0		ı	0.0	1	1
12.4	0.0		0.0	0.0	0.0	0	2.5	0.0	0.0		ı	0.0	ı	1
12.4 12.4 12.4 13.4 10.0	12.4		0.0	0.0	8	8	0.0	0.0	5.7		1	0.0	ł	1
12:40 000 000 000 000 000 000 000	12:4 000 1			) ) 	)		)	) ) ) )			ı	0.0	ı	١
8.3 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0	8.3 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0			1	1	12.4	1	1	20.00		1	5.6	1	ı
13.1	33			1	1	2 B	1	ı		1	ı		ŧ	ı
10.00 10	0.00			ı	1	200	1	1	0.0	1	1	) ) 	1	i
	2.5		200	ı	ı		1	1	)	0	ı	1	1	1
	000 000 000 000 000 000 000 000		100	ı	ı		ı	1	ı	-	ı	1	1	ı
	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9 4	1		0 0		ł	1	10		ŧ	ı	i
	2.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		0.0	ı	1	200				0,0				
0.00 0.00	2 2 2 3 3 4 5 5 5 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7		0.0	ł	I	0.0	ı	ı	ı	5.0	í	ı	ı	ı
2.8 13.1 1	2.8 6.0 7.7 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3		3.8	1	ı	0.0	ı	ı	ı	0.0	ı	l	ı	ı
13.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		0.0	ı	1	2.8	1	ı	ı	0.0	ı	1	ı	ı
2.9	3		1.6	ı	1	0.0	ŀ	ı	1	0.0	ı	ı	ı	1
7 - 13.1 - 1 - 0.0 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	7 - 13.1 - 13.1 - 1 - 0.0 - 1 - 13.1 - 1 - 0.0 - 1 - 1 - 0.0 - 1 - 1 - 0.0 - 1 - 1 - 0.0 - 1 - 1 - 0.0 - 1 - 1 - 0.0 - 1 - 1 - 0.0 - 0.0 - 1 - 0.0 - 0.0 - 1 - 0.0 - 0.0 - 1 - 0.0 - 0		5.3	ı	ı	2.9	ı	1	ı	0.0	ı	ı	ı	1
13.1 6 6 6 7 13.1 13.1 13.1 13.1 13.1 13.1 13.1 14.9 15.0 16.0 17.0	6 13.1		1.7	ı	1	0.0	1	1	ı	0.0	ı	1	ı	ı
22.8	6 0.0		5.0	ı	ı	13.1	1	1	1	0.0	ı	1	1	1
2.3	2.3		2.6	1	1	0.0	1	ı	1	2.8	1	ı	ı	ı
0.00	0.0 0.0 0.0 0.0		2.2	1	1	0.0	ı	1	ł	2.3	1	ı	1	1
			0.0	ı	ı	0.0	ı	1	1	1.9	1	ı	ı	1
	0.0 0		000	ı	ı		1	ı	1		ı	ı	ı	1
	2000		9 0						1	, ,	1	ı		1

				Hygopi	hum atr	Hygophum atratum (cont.	cont.)					١
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
147.0 40.0	0.0			0.0			,	2.1	ı	1	1	1
147.0 45.0	0.0	ı	1	2.8	1	ı	1	2.5	1	ì	1	ı
	0.0	ı	ı	8.6	ı	ı	ı	0.0	ı	ı	ı	ı
	0.0	1	ı	ı	ı	ı	ı	2.6	ı	ı	ı	ŧ
	0.0	ı	ı		ı	ı	ı	3.0	ł	ı	ı	1
	5,3	1	ı	ı	ı	ı	ı	3.1	ı	ı	ı	I
	0.0	1	ı	ı	ı	ı	1	6.4	ı	ı	ı	ı
	5.6	1	ı	1	ı	1	1	1.1	ı	1	i	ı
	0.0	1	1	ł	1	1	1	9.3	ı	ı	ı	ı
	00.00	1	ı	ı	1	ı	1	1	1	ı	1	1
	0.0	ı	ı	ı	1	i	1	ı	ı	ı	ı	1
70.	200	ı	ı	1	ı	i	1	ı	ı	ı	i	1
	0.0	ı	ı	1	ı	ı	1	i	ı	ı	1	ı
0 0	1 11	ı	ı	ı	ı	1	1	ı	1	1	ı	1
200	י ני		ı	ı	ı	1	ı	1	1	1	1	1
				1	ı	1	1	1	1	ı	i	ı
300	5.3	ı	1	I	I			1	ı	ı	1	1
35.	2 . 3	ı	ı	ı	ı	ŧ	i	1	ı	ı	1	ı
45.	7.8	ı	ı	ı	í	ı	1	ı	ı	ı	ı	ı
	4.8	ı	ı	ı	ı	1	1	ı	ı	1	ŧ	ı
60.	2.7	ı	ı	ı	1	i	1	ı	ı	ı	i	I
	1.8	ě	ı	1	ı	1	1	ı	ı	ı	1	ı
157.0 80.0	2.6	ı	1	ı	!	1	ı	ı	1	ı	1	ı
							•					
				Hyg	ophum 1	Hygophum reinhardtii	itii					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JOLY	AUG.	SEP.	OCT.	NOV.	DEC.
80 0 120 0		1			2.9			1	ŀ	î	1	1
0.09 0.09	1	0.0	0.0	0.0	0.0	1	0.0	0.0	2.6	0.0	ı	0.0
90.021.0.09	1	1	1	1	0.0	1	ı	1	2.5	ı	ı	1
93.0 90.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	ı	ı	0.0
93.0 100.0	1	1	1	ł	ı	ı	1	ı	0.0		ı	3.0
97.0 90.0	0.0	0.0	ı	0.0	0.0	0.0	0.0	3.0	1	0.0	ı	ı
100.0 60.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	í		ı	ſ
103.0 90.0	0.0	1	ı	0.0	0.0	0.0	2.7	0.0	ı		ı	ı
107.0 80.0	0.0	ı	0.0	0.0	0.0	0.0	0.0	6.1	ı		ı	ı
110.0 70.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	ı		ı	ı
110.0 85.0	1	ı	ı	0.0	0.0	0.0	2.6	1	1	ı	ı	1
_	t	0.0	0.0	0.0	3.2	0.0	0.0	0.0	ı	1 0	ı	ı
_	0.0	1	0.0	0.0	0.0	0.0	0.0	9.6	î	0.0	i	ı
127.0 60.0	0.0	0.0	0.0	1 -	0.0	0.0	200	0.0	ı	0.0	ı	ı
_	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	ı	0.0	ı	i

TABLE 4. (cont.)

	DEC.	0.0		DEC.	1	1	1	1		DEC.	0 000
	NOV.	0		NOV.	ı	ı	ı	ı		NOV.	0.
	ocT.	000000000000000000000000000000000000000		OCT.	ı	1	1	ı		ocT.	2.8 2.9 0.0 0.0 0.0 0.0 0.0 11.4 111.4
	SEP.	0.0		SEP.		ı	ı	ı		SEP.	700000000000000000000000000000000000000
	AUG.	0.0000000000000000000000000000000000000		AUG.			1	ı		AUG.	80000000000000000000000000000000000000
	JULY	00000000	natum	JULY		1 8	. 1	ı	um	JULY	780080000000000000000000000000000000000
rara	JUNE	00000000	olater	JUNE		1	1 1	ı	nitidul	JUNE	00 00 000000000000000000000000000000000
Loweina rara	MAY	000000000	Myctophum aurolaternatum	MAY		1 1	ı ı	ı	Myctophum nitidulum	MAY	
	APR.	000000000000000000000000000000000000000	Myctop	APR.		1 1	1 1	ı	Myct	APR.	000000000000000000000000000000000000000
	MAR.	2		MAR.		1	1 1	1		MAR.	0.00.00.00.00.00.00.00.00.00.00.00.00.0
	FEB.	00000 0 0		FEB.		1	1 1	ı		FEB.	0.000110000000111
	JAN.	000000000000000000000000000000000000000		JAN.		, c	26.2	2.6		JAN.	11111121100012100000000000000000000000
		980 990 000 000 000 000 000 000 000 000				10.0	30.0	80.0			145.0 120.0 120.0 120.0 100.0
	STATION	90.00 97.00 100.00 1113.00 1117.00 1127.00		STATION	!			157.0		STATION	887.0 887.0 987.0 9987.0 100.0 9983.0 1100.0 11

	DEC.	
	NOV.	
	OCT.	11.1 11.2 10.0 10.0 10.0 10.0 10.0 10.0
	SEP.	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0
	AUG.	
(cont.)	JULY	00000000000000000000000000000000000000
dulum	JUNE	000087000076000000000000000000000000000
Myctophum nitidulum	MAY	
Ayctoph	APR.	
1	MAR.	001010110000000000000000000000000000000
	FEB.	00 000000000000000000000000000000000000
	JAN.	04 0 4 000000 00 00000 0000 0 0000 0 0 0000
	N	2000 2000
	STATION	00000000000000000000000000000000000000

	DEC.	1	ı	1	1	1	1	1	1	ŝ	ł	ı	ı	ı	1	ŧ	ı	1	ł	ı	1	1	t	ı	ı	ı	ı	1	1	1	1 1	ı	ı	ı	i	0.0	0.0	2.4	0.0	i	1	1	0.0	0.0	0.0
1000	NOV.	ı	ı	1	ı	t	1	ı	ı	1	1	ı	1	ł	t	1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ŧ	ı	ı	ı	ı	1 1	ı	1	1	1		2.3	•	0.0	1	l I	1	0.0	0.0	0.0
	OCT.	7.5	3.6	5.9	9.9	8.7		8.8		1	4.9	2.5	14.7	17.0	8,3	3,3	4.3	2.6	2.9	í	0.0	0.0	0.0	0.0	1 :	0.0	1 (	0.0	1.6	2.9	0.0	2 5	1 1	0.0	0.0	1	0.0	0.0	2.7	,	1.0	5.9	1	0.0	2.8
	SEP.	ŀ	1	1	ı	ı	ı	ı	ı	1	ı	ı	ı	ł	ı	ŀ	ı	ı	ı	1	ı	1	ı	t	ı	1	1	ı	ı	1	1 1	1	ı	1	1	1	Į	1	ı	1	1	1	1	ı	ı
	AUG.	1	1	1	1	ı	ı	1	1	1	1	ı	ı	ı	1	1	ı	ı	1	ı	t	1	1	ı	ı	1	1	ı	ı	i	1 1		1	ı	0.0	ı	0.0	0.0	ı	ı		1	1	2.8	0.0
kerı	JULY		1	2.9	1	1	0.0	0.0	0.0	0.0	0.0	6.7	3,3	0.0	0.0	3.1	0.0	0.0	0.0	3.4	3.9	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	3°T	0.0	0.0	1.9	0.0	0.0	ı	0.0	0.0	0.0	0.0		, , ,	1	0.0	0.0
Protomyctophum crockeri	JUNE		1	ı	1	1	ı	I	1	ı	1	ı	1	1	1	1	1	ŀ	t	ı	1	ı	ı	1	ı	ı	ı	ı	1	ı	ı		1	1	0.0	1	0.0	0.0	0.0	1 9	0.0	0.0		0.0	
myctoph	MAY		ŧ	1	ı	1	0.0	0.0					0.0							1	1		0.0		1	ı	0.0	8.9	n n	0.0	0.0	100	17.0	3.0	0.0	ı				0		000		2.8	
Proto	APR.		i	1	1	1	-	0.0	-	1	3°3	0.0	1	ı		0.0		ı	ł	ı	0.0	2.7	3.5	0.0	0.9	2.3	1	0.0	1 :	0.0	20.0	200	0 1	0.0	2.9	1	0.0	0.0	0.0	1 (	3.1	3.0	1	3.0	0.0
	MAR.		ı	1	1	1	ı	ı	1	1	1	ł	ı	1	ı	ı	ı	ı	ı	ı	ı	ı	í	ı	ı	ı	1	1	1	ı	1	1 1	ı	ı	1	ı	ı	1	ı	ı	1	1 1	1	1	ı
	FEB.		1	1	ı	1	ì	1	1	1	1	1	ı	1	1	1	1	1	1	ı	ı	1	ı	ı	ı	ı	ı	1	1	1	0.0	0	3.5	1	0.0	0.0	3.2	0.0	4.9	ı	1	1 1		6.2	
	JAN.		ı	1	1	1	2.7	0.0	0.0	) 	0.0	0.0	0.0	1	0.0	0.0	2.8	0.0	ı	ı	0.0	ı	3.0	0.0	1	0.0	1	0.0	1	0.0	0.0	0	0.0	1	0.0	1	0.0	0.0		ı	ı	1 1	1	0.0	0.0
	NC	1													90	55	09	70.	80°	85.	90	52.	55.	60.	65.	700	75.	80°	85.	90°	60.	900	75.	80,	50.	53.	55.	.09	70.	15	900	90.06	53.	55.	60.
	STATION	42	2000	20.0	53.0	53.0	60.0	60.09	60.09	0.09	60.09	63.0	63.0	63.0	63.0	67.0	67.0	67.0	67.0	67.0	67.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	73.0	73.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	0.//	0.77	77.0	80.0	80.0	80.0

	DEC.	000000000000000000000000000000000000000
	NOV.	00000000000000000000000000000000000000
	OCT.	7.5.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SEP.	111111111111111111111111111111111111111
(:)	AUG.	0.000
(cont.	JULY	
Protomyctophum crockeri	JUNE	0000 NUOVO-101000WWWW0001000000000000000000000000
ophum c	MAY	000000000000000000000000000000000000000
otomyct	APR.	0008 1 1 1 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Pro	MAR.	00000000 9 7 00000000
	FEB.	00
	JAN.	00001010001010000111111100000111111110000
	STATION	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	STA	88888888888888888888888888888888888888

## Of the control of				PEC	Compc	opnim c	rotomyctopnum crockeri	(conc.	(				
10	LON	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
100   100	65.		ı	1 0	800	8.7				2.8	10	10	10
100   100	75.	0.0	1 1	0.1	0.0	0.0				0.0	) ) )	) ) 	C = 7 
100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80.	0.0	0.0	0.0	2.9	2.7				2.7	5.6	0.0	0.0
190   190	82	10		1 0	0.0	1.0				9.7	1 1	1 1	10
10   10   10   10   10   10   10   10	.06.	0.1		0.0	0.1	0.1	0			5.4	1	1	٥
10	32.			2.6	0.0	0.0	0.0	0.0		1	-	ı	1
40.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	35.			2.5	0.0	0.0	3,3			1	8.8	ı	ı
45.0         0.0         2.4         5.5         5.8         6.2         0.0 <td>40.</td> <td></td> <td></td> <td>0.0</td> <td>0.0</td> <td>2.8</td> <td>0.0</td> <td></td> <td></td> <td>ı</td> <td>٠.</td> <td>ı</td> <td>ı</td>	40.			0.0	0.0	2.8	0.0			ı	٠.	ı	ı
55.0	45.			5.5	5.8	6.2	0.0			1	2.6	ı	ſ
55.0         2.8         0.0 <td>50.</td> <td></td> <td></td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td></td> <td></td> <td>ı</td> <td>٦.</td> <td>ı</td> <td>i</td>	50.			0.0	0.0	0.0	0.0			ı	٦.	ı	i
66.0 6.1	55.		0.0	0.0	1	0.0	0.0	ı		1	٦.	ı	ı
75.0 765.0 770	60.	8.1	2.5	0.0	0.0	5.7	0.0	2.8		1	2.4	ı	ŧ
75.0	65.	1	ı	ı	0.0	0.0	2.7			1	ı	ı	į
75.0	70.	0.0	0.0	ı	0.0	0.0	7.6			ı	0.0	ı	ı
89.0	75.	1	١	ı	5.4	0.0	0.0			1		ı	ı
85.0	80.	23.7		ı	0.0	0.0	0.0			ı	5.8	ı	1
350.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	85.	1	ŧ	ı	2.9	0.0	0.0			ı		ı	1
39.0 45.0 45.0 55.0 56.0	90.	0.0		1	0.0	0.0	0.0			ı		ı	ì
35.0	30.	0.0		0.0	0.0	0.0	2.9			ı		I	t
40.0	35.	2.7		0.0	0.0	6.1	0.0			I		ŝ	ı
45.0 55.0 56.0	40.	1		0.0	0.0	0.0	3.5			1		ŧ	ı
55.00	45.	0.0		0.0	0.0	0.0	5.6			ı		ı	1
7000 0.00 0.00 0.00 0.00 0.00 0.00 0.00	50°	2.3		0.0	0.0	0.0	0.0			ı		ı	ı
80.00	55.			0.0	0.0	0.0	0.0			t		ı	ı
14.1	60.			0.0	0.0	0.0	0.0			i		1	
9000 9000	/0.			t	0.0	0.0	0.0			1			1
35.0	000			1	0.0	0.0	000						
45.0 2.8 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	90.			1 1	0.0	ا د.	0.0			l l	000	1 1	1
45.0 2.3 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	200			0	0	0 0	a u	J		ł		ı	ı
450.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	40.					0.0	0.0	1		1		1	i
55.0 55.0 65.0	45			0.0	0.0	0.0	0.0	2.9		1		ı	ı
55.0 5.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	50.			0.0	0.0	0.0	0.0	0.0		1		ı	ı
65.0 0.0 2.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	55.			0.0	0.0	0.0	2.8	0.0		ı		ı	ı
65.0	.09			0.0	0.0	0.0	0.0	0.0		1		ı	ı
70.0 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	65.		1	1	0.0	2.8	0.0	2.7		ı		ı	ı
80.0 2.7 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	70.			0.0	2.7	0.0	0.0	0.0		I	0.0	ı	ı
90.0 2.6 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80°		ı	0.0	0.0	0.0	0.0	0.0		ı		i	ı
35.0 5.6 2.0 0.0 0.0 0.0 3.2 0.0 3.2 0.0 3.2 0.0 3.2 0.0 3.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	90.			1	0.0	0.0	0.0	0.0		1		ı	ı
45.0 0.0 0.0 0.0 0.0 0.0 5.7 0.0 0.0 3. 45.0 0.0 0.0 0.0 0.0 0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	35.			0.0	0.0	0.0	3.2	0.0		I		ı	I
45.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	40.			5.2	0.0	5.7	0.0	0.0		1		ı	1
50.0 0.0 0.0 0.0 2.6 0.0 0.0 0.0 0.	45.			0.0	0.0	0.0	5.6	0.0		ı		ŧ	1
55.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0				0.0	2.6	0.0	0.0	0.0		i		1	ı
				0.0	0.0	0.0	3.0	0.0		I	ı	ı	ı

	DEC.	
	NOV.	
	OCT.	0   0   0   0   0   0   0   0   0   0
	SEP.	0.0000000000000000000000000000000000000
·	AUG.	10000000000000000000000000000000000000
(cont.	JULY	070000000000000000000000000000000000000
ockeri	JUNE	
phum cz	MAY	
Protomyctophum crockeri	APR.	000000000000000000000000000000000000000
Pro	MAR.	0 10 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	FEB.	0 0001000000010011000000000000000000000
	JAN.	4 10 10000 00 00 00 10 10 10 10 10 10 10
	TON	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	STATION	1000 1000 1000 1000 1000 1000 1000 100

TABLE 4. (cont.)

				Pr(	Protomyctophum crockeri	ophum c	rockeri	(cont.	•				
STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
	55.0	ı	0.0	0.0	ı	0.0	5.5	5.1	2.8	1	0.0	1	1
	65.0	1 (	ı	ı	1	2.6	0.0	0.0	0.0	1	1 0	1	ı
	70.0	0.0	1 0	1 9	ı	0.0	0.0	7.7	0,0	1 9	0.0	ı	ı
	0.04	24.5	000	•	1 1		٥٠	2°4	0.0	0.0	0.0	}	1 1
	0.00	0.0	000	000	ı		1 LC	0.0	200	i	, c	ı	1
	65.0	0 1	)	)	1	0.0	0.0	0.0	0.3	ı	1	1	i
	70.0	0.0	ı	1	1	0.0	0.0	0.0	2.9	1	0.0	ı	ł
	50.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	ı	0.0	ı	ı
	55.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	ı	0.0	ı	ı
	0.09	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	ı	0.0	ı	i
	50.0	0.0	0.0	0.0	0.0	1	0.0	3.1	0.0	ı	0.0	ì	ı
	50.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	ı	0.0	1	ŧ
137.0	0.09	0.0	1 1	1 1	0.0	1 (	1 1	2,7	1 1	1 1	0.0	1 1	1 1
					Out of a Contract		or 1 of County of the						
				4	OTOGINA		Califor	Tenern					
STATION		JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
	0.06	0.0	1	ı	3.3	0.0	1	2.5	ı	ı	0.0	ı	1
0	0.06	0.0	ı	ı	5.7	0.0	ı	0.0	1	ı	0.0	1	1
0	85.0	1	1	1	I	ı	ı	3.4	1	ı	1	ı	ı
0	0.06	0.0	ı	1	15.1	ı	ı	0.0	1	ı	0.0	I	ı
0	75.0	L	ı	I	1	2.7	1		1	t	1	t	ı
0	90.0	0.0	1 0	ł	7.9	0.0	ı		ı	ı	0.0	ı	1
0	25.0	0.0	0.0	ı	0.0	2.8	ı		ı	ı	0.0	ı	ı
0	0.09	0.0	0.0	1 1	0.0	1.0.1	1		1	1 -	0.0	1	ı
0.0	0.00	0.1	0.0	1 1	000	17.1	1 1		1 1	1 1		1	
	0.06	1	1	1	200	000		12.9	1	1		1	1
0	0.09	0.0	0.0	ı	0.0	0.0	0.0		0.0	ı	0.0	0.0	0.0
0	65.0	ı	1	1	0.0	0.0	3,3		ı	ı	1	1	i
0	80.0	1	1	1	0.0	0.0	0.0		ı	ı	0.0	í	1
0	85.0	1	ı	ı	1	0.0	2.4		ı	ı	1	1	ŀ
2	90.0	1 4	1 0	ı	0.0	2.9	11.7		1 0	I	0.0	1 4	1 (
5	0.09	0.0	0.0	ı	0.0	1°9	0.0		0.0	ı	0.0	0.0	0.0
0	65.0	ı	ı	ı	0.0	0.0	2.8		1 0	ı	ı	ł	I
٥,	75.0	1 0	1 0	ı	0.0	0.0	0.0		0.0	1	1 (	ı	ı
٥,	0.06	0.0	0.0	1	2.8	0.0	0.0		0.0	ı	0.0	ı	I
20	0.00	ı	ì	ı	ı	20.0	ł	ı	ı	ı	ı	ì	1
0.0	0.00		1	1 1	1	13.3	1	1	1	1	1	1	1
00	20.00	0	0	1 1	0 0	0.4	0	3 1	0	1 1	0	0	0
83.0	65.0	0.1	0.1	1 1	0.0	000	17.8	2.5		1 1	0.0	0.1	0.1
0	70.0	2.9	0.0	1	000	19.3	46.1	0.0	000	ı	0.0	1	1
			1		)	1		)	)		)		

DEC. 0.000 NOV. S SEP. Symbolophorus californiensis (cont.) AUG 000000000000 00000000000 00000000000 0000 H@WCCCC@@@@CCC@@CC@ 8008068 MAY APR. 7080 700000 000000 11110011111111100001141111000000141101011000001 0. FEB 0000 000040 0 0 8 0 JAN. 75.0 880.0 STATION 

0000

00

0 0

00

000000 6 0

TABLE 4. (cont.)

	DEC.		DEC.	1 1 1 1
	NOV.		NOV.	1111
	OCT.	0.0000000000000000000000000000000000000	OCT.	2.7 2.6 2.1 2.9
	SEP.	00 0 00	SEP.	1111
ont.)	AUG.		AUG.	1111
nsis (c	JULY	3.1 2.8 2.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JULY	1117.8
fornie	JUNE	19.7 10.0	JUNE	1111
us cal	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	1111
Symbolophorus californiensis (cont.)	APR.	7arlet	APR.	1111
Symb	MAR.	111100000011111100000100000000000000000	MAR.	1111
	FEB.	10.5	FEB.	1111
	JAN.	0.0000000000000000000000000000000000000	JAN.	1111
	ON	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	NC	50.0 47.0 60.0 80.0
	STATION	00000000000000000000000000000000000000	STATION	43.0 50.0 50.0

Tarletonbeania crenularis (cont.)

			TOT	rarrecompeanta cremataria	aiiia Ci	בוומדמון	יחוורי ו	1001				
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
۱ .							1		1		ı	ı
	ı	ı	ı	1	1	1	1	1	1	8 8	ı	I
	1	1	ı	ı	ı	ı	1	ı	ı	4.0	1	ı
	ı	ı	1	1	1	ı	ı	1	t	5.8	ı	1
	ı	ı	ı	1	ı	1	ı	ł	ì	2.2	1	ı
	1	ł	1	ı	ı	1	3.1	ı	ı	î	i	ı
	0.0	ı	ı	ı	0.0	1	2.8	ı	1	0.0	1	ı
0	0.0	1	1	ı	6.4	ı	0.0	1	i	0.0	ı	ı
	0.0	ı	1	0.0		1	0.0	í	t	5.6	ı	i
	1	ı	ı	0.0	36.5	1	0.9	ı	1	1	ı	I
	0.0	1	1	5.5	18.2	1	5.7	ı	ı	15.3	ı	ı
		ı	1	)		ı	0.0	1	i	ı	ı	ı
	0.0	1	1	0.0	0.0	1	2.8	1	ı	0.0	ı	1
0 0		ı	ı			1	3.0	1	ı	1	1	I
00	0	ı	ı	3.3	11.6	1	2.5	1	١	2.5	i	ı
		ı	ı	0 0		1	14.1	1	ı	0.0	ı	ı
	000	1	ı	2 0		ı	13.4	i	ı	2.5	1	1
		ı	1	0 1		ı	9.9	1	1		i	1
00	0	! !				ı	200	ı	ı	8	1	1
0 0		1		1				1	ı	) ) ) 	ŧ	ı
0 0	ı	ı	1					1	ı	0 7	ı	ı
0 0	1	i	1	I		l				100	1	ı
0	1 4	l	1			I	0.0	1	1	0 6 1		
0	0.0	ı	1			ı	0.7	ı	ı	T	l	
0	0.0	ı	١.	0.0	ر ب ا	1		ı	l	ກຸດ	ı	1
0	0.0	ı	l			1	13.4	ı	ì	0.0	ı	l
0	ı	ı	ı	ı		1		ŀ	ı	1 0	ı	ł
0	0.0	1	ı	1		t	14.0	t	ı	χ. Ω.	ı	ı
0	1	ı	1	I		ı		I	ı	0.0	ı	ı
0		ı	1	ı	ı	ı		1	1	1 (	1	1
0	0.0	ı	I		1	ı		1	ı	0.0	1	I
0		i	ł	5.5	0.0	1	3,3	ŀ	ı	0.0	ı	I
0	0.0	ı	ı		2.9	ı		1	ı	0.0	1	i
0	0.0	ı	I	3.0		ł	3.4	I	ı	0.0	ı	ı
0	1	ı	ŧ	0.9	1	i	0.0	ı	ı	1	ı	I
0	5.5	ı	1	2.3	í	ı	9.5	ı	i	0.0	ı	1
0	ı	1	t	ı	2.7	ı	6.2	ı	ı		ı	1
0	2.9	1	1	5.2	0.0	1	6.8	1	ı	0.0	1	1
0	ı	ı	ı	ı	17.4	1		1	ı	ı	ı	ı
0	0.0	1	ı	0.0	0.0	1	15.7	l	ı	0.0	ı	1
0	- 0	0.0	1	0.0	0.0	ı		1	1	0.0	1	ı
0	0.0	0.0	1	0.0		1	0.6	1	1	0.0	ı	I
0		1	ı		0.0	1		1	ı	1	ł	ı
0	ı	1	ı	ı	0	ı	24.4		ı	ı		1
0	0.0	0.0	1	3.1		3.1	0.0	0.0	è	0.0	0.0	0.0
0.09 0.77		0.0	ı	0.0	2.8	6.4	0.0		ı	0.0		0.0
0	1	ı	ı	0.0			0.0	I	ı	ŀ	ı	i

TABLE 4. (cont.)

	DEC.	0.0000000000000000000000000000000000000	DEC.	
	NOV.	0.0111000110	NOV.	
	OCT.	12.0 12.1 12.1 12.0 12.0 13.0 13.0 13.0 13.0 13.0 13.0 13.0 13	OCT.	22.8 22.7 33.7 111.4 111.3 111.3 111.3 111.3 113
	SEP.	11111111111111	SEP.	1 1 1 2 2 2 2 3 3 8 8 2 2 2 3 3 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
ıt.)	AUG.	0 08000000	AUG.	000 1000000 10000000 11000
s (cont.)	JULY	000000000000000000000000000000000000000	JULY	000 000000 0000000 000
enuları	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	000 000000 0000000 000
Tarletonbeania crenularis	MAY	3.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	000 000000 000 000 000
letonbe	APR.	0.0000000000000000000000000000000000000	APR.	000 000000 0000000
Tar.	MAR.	1111111111111	MAR.	000 000000 0000000 000
	FEB.	0 0 0 000000	FEB.	000 000000 0000000 000
	JAN.	0 0 0000000	JAN.	000   1008080   1008081   1004
	N	700 88000 88000 7000 7000 88000 88000 88000 88000 88000 88000	N	8 4 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	STATION	777.0 777.0 777.0 777.0 880.0 880.0 880.0 883.0 883.0	STATION	1110.0 1113.0 1115.0 1115.0 1115.0 1115.0 1117.0 1117.0 1118.0 1120.0 1120.0 1120.0 1120.0 1120.0 1121.0 1121.0 1121.0 1121.0

TABLE 4. (cont.)

	DEC.		DEC.	DBC.
	NOV.	1111111111111111111111	NOV.	NOV
	OCT.	0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ocr.	0.0 0.0 0.0
	SEP.	0.0 11.0.0 0.00 0.00 0.00 0.00 0.00 0.0	SEP.	THE STATE OF THE S
	AUG.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	AUG.	0.00 0.00 11.50 11.7
t.)	JULY	000000000000000000000000000000000000000	JULY	tus
o. (con	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	Productus
Synodus spp. (cont.)	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	.5 .0 .0 .0       
Sync	APR.		APR.	2.5 0.0 0.0          
	MAR.	0000000000001111111	MAR.	MAR.
	FEB.	0000000000001111111	FEB.	FEB.
	JAN.	2.2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	JAN.	0.000000000000000000000000000000000000
	1	199.00 199.00		60.0 335.0 335.0 335.0 116.0 110.0 80.0 80.0 65.0 75.0
	STATION	127.0 127.0 127.0 130.0 1330.0 1333.0 1334.0 137.0 137.0 137.0 140.0 140.0 147.0 147.0	STATION	143.0 1447.0 150.0 153.0 153.0 157.0 157.0 157.0 157.0 157.0 157.0 157.0

	DEC.	1	ı	ı	1 1	1	1		1	1	I	I	1	ł	I	1	1	1	1	1	i	i	1	1	1	1 1	1	1	ı	ı	1	1	i	1 (	0.0	0.0	1 4	0.0	1 0	0 1	1	1	ı	ı	0.0
	NOV.	1	1	ı	1 1	1	1 1		ı	1	ı	ŧ	ì	ı	ı	ı	ı	I	ı	ı	ı	ı	ı	ı	ı		ı	1	1	1	ı	ı	1	1 (	0.0	0.0	10	Z.b	1 9	0.0		1	ı	ı	0.0
	ocr.	0.0	0.0	0.0	0.0		c	0	1 9	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	1 4	0.0	1 4	0.0	1 9	0.0	0.1	0		0.0	)	0.0	0.0	0.0	0.0	1 0	0.0		0.0		0.0	0.0		0.0	0.0	ı
	SEP.	ı	ı	1	1 (	1	1 1		i	ı	ı	ı	1	ı	ŧ	ì	ı	ı	ı	ı	ı	ı	ı	ı	ı	!	1	1	ı	ı	1	1	ı	ı	1	I	1	ı	i	1 1		ı	1	1	1
0	AUG.	1	ı	ı	1 1		1 1	1	ı	ı	1	ı	I	ı	ı	1	ı	I	ı	I	ı	I	ı	ı	ı	1 1	1	ı	i	ŀ	1	ı	1	0.0	1 4	0.0	1 0	0.0	1	1 1	1 1	1	1	0.0	1
(cont.)	JULY	0.0	0.0	0.0	0.0	000	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0		0.0	0.0	0.0	0.0		0.0		0.0	1 (	0.0	0.0	0.0	0.0		0.0	0.0	1
nctus	JUNE	1	ı	ı	1	1 1	1 1	ı	ı	ı	ı	1	ı	ı	ı	1	ı	ł	ı	ı	ı	ı	ı	ı	ı	1 !	. 1	ı	ı	1	ı	ı	1	0.0		0.0	1 4	0.0	0.0	0.0	c 1 c		0.0	2.7	ı
Merluccius productus	MAY	0.0		1	0.0	2000	77.77	40.7	18.8	14./	0,0	4.0	٠ ٠	4.0	0.9	3.0	0.0	11.8	7.9	ı	1		ۍ پ پ	ۍ پ	200	0.0	2	0	9.2	3 4	3.0	0.9	0.0	0.0	ı	1	1		0.0	0.0	000	000	2.0	30.0	1
erlucci	APR.	21.7	136.1	2.8	32.6	0.02	1	I	1 7		7.4	9.7	13.7	1	ı	1	16.4	20.9	0.6	36.2	43.3	1 0	89°T			0.0	ר או	1.2.1	32 0	71.8	117.3	29.1	5.9	2.9		24.5	1 1		2.8	11.0	L 01/	T . L	0.0	23.2	1
M	MAR.		ı	ı	ţ	1 1	1	i	ı	ı	1	1	ı	i	ı	ı	ı	1	1	ı	1	ı	1	ı	ı	ı	1 1	1	ı	ı	+	1	ı	1	ı	ı	ı	í	ı	ı	1 1		ı	1	ı
	FEB.		1	ı	ı	1	ı	ı	1	1	ı	ı	ı	1	1	1	ı	ı	ı	ı	ı	ı	ı	ı	1 1	537.2	544.9		15.2		15.8	ı	1	79.4	217.4		113.6	10.1		0.0	1 1	1	1	1	671.2
	JAN.	0.0	0.0	0.0	0.0	0.0	I	ı	1 4	0.0	0.0	0.0	0.0	0.0	1	ı	1	0.0	0.0		0.0		0.0		0.0	0.0	0	0	0 9		0.0	1		0.0	ı	5.6		9.3		0.0		1	1	36.3	1
		80.0	0.06	52.0	55.0	20.0	75.0	80.0	85.0	90.0	50.0	55.0	0.09	70.0	75.0	80.0	52.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	90.0	51.0	0.5.0	20.00	0.09	65.0	70.0	80.0	0.06	50.0	53.0	55.0	57.0	0.09	65.0	70.0	0.07	85.00	90.0	52.0	53.0
	STATION	0.09	0.09	63.0	63.0	63.0	63.0	63.0	63.0	63.0	67.0	0.79	67.0	67.0	67.0	0.79	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	0.77	77.0	77.0	80.0	80.0

	DEC.	
	NOV.	13.1 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1
	OCT.	
	SEP.	0 00000000 0000
	AUG.	
(cont.)	מתר	
luctus	JUNE	0 000000 800000000000000000000000000000
us prod	MAY	11000000000000000000000000000000000000
Merluccius productus	APR.	165 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Æ.	MAR.	100.6 100.6 100.9 100.6 10.0 10.0 10.0 10.0 10.0 10.0 10.
	FEB.	1872.2 16333.3 13.0 3.0 3.0 3.1 13.0 10.0 10.0 10
	JAN.	13.8 13.8 13.8 13.8 13.8 13.8 13.8 13.8
	NC	4 4 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	STATION	

	DEC.	
	NOV.	00000011111111111111111111111111111111
	OCT.	
	SEP.	0000001111111111111111110001000100001110000
	AUG.	000000000000000000000000000000000000000
(cont.)	JULY	
luctus	JUNE	000000000000000000000000000000000000000
us prod	MAY	000000000000000000000000000000000000000
Merluccius productus	APR.	81.4 81.4
V	MAR.	00000000000000000000000000000000000000
	FEB.	7.7.2.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
	JAN.	wao   00040000000 000000000000000000000000
	NC	0.00 0.00
	STATION	0.000000000000000000000000000000000000

TABLE 4. (cont.)

			I	derlucc.	Merluccius productus	ductus	(cont.	_				
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DBC.
			0		0		2 6	0				
	0.0						9 0		0			ı
	0.0		0.0	1							1	
	10.0	٥٠٢٧	0.0		000				•			
	0.0	7 · T	, c		, ,				0 1		-	1
	200	7.4		0	000				0	000		
	0.01	0000	0.00		000	•	•	•		•		
	13.3	20.3	20.0	0.0	0.0	0.0	0.0	000	0.0	0.0	1	ì
	0.0	17.9	11.4	0.0	7.0	0.0	0.0	0.0	0.0	000	1	1
	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	i	ı
	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	1 4	0.0	í	ı
	2.4	0.0	110.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	ł	ı
	0.0	0.0	240.8	2.8	0.0	0.0	0.0	0.0	ı	0.0	ŧ	ı
	2.0	0.0	35.5	4.0	0.0	0.0	0.0	0.0	ı	0.0	ł	ı
	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	ı	0.0	ı	ı
	0.0	0.0	3.1	0.0	ı	0.0	0.0	0.0	ı	0.0	1	ı
	11.7	0.0	73.8	0.0	ı	0.0	0.0	0.0	0.0	0.0	i	ł
	16.8	11.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ı	ı
	61.3	10.7	23.6	8.2	0.0	0.0	0.0	ı	0.0	0.0	ł	ı
	0.0	0.0	11.7	0.0	0.0	0.0	0.0	0.0	ı	0.0	ı	1
	0.0	0.0	0.0	18.6	0.0	0.0	0.0	0.0	ı	0.0	1	ı
	0.0	8.8	0.0	5.6	0.0	0.0	0.0	0.0	ı	0.0	i	ŧ
	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	ı	0.0	ı	Į
	4.7	ı	ı	5.6	i	ı	1	0.0	ı	ı	ı	1
140.0 35.0	٠ ۵ ۵	į	ı	0.0	ı	1	ı	0.0	1	1	1	1 1
	3.0	ı		0.0	ı	ı	ı	0.0	ı	ı	ı	i
	18.4	ı	1	0.0	ı	1	ı	0.0	1	1 1	1	1
	7.0	l	l	0.0	1	ı	ı	0.0	ı	ı		ı
					Physiculus spp	dds snl	٠					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
120.0 60.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ı	0.0	1	ı
	2.3	ı	ı	1	ı	ı	1	ı	Į.	ı	ı	1
					Macro	Macrouridae						
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
		1			1	1	1	ı	,	2.2	ı	í
83.0 90.0	0.0	2.6	1	0.0	0.0	0.0	0.0	0.0	1	0.0	1	1
	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	ı	0.0	ı	I

TABLE 4. (cont.)

	DEC.	
	NOV.	D 00000 0 0 00000 0 0 0 0 0 0 0 0 0 0 0
	OCT.	000000000000000000000000000000000000000
	SEP.	200.0000000000000000000000000000000000
	AUG.	AUG. 11.00 0.00 0.00 0.00 0.00 0.00 0.00 0
	JULY	12.3 July July July July July July July July
Ophidiiformes	JUNE	2.4 2.9 3.9 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Ophidii	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
	APR.	Brosm
	MAR.	AAR.
	FEB.	0 000000000000000000000000000000000000
	JAN.	0 00000000 0000000000000000000000000000
	Z	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z
	STATION	70.0 80.0 80.0 80.0 80.0 80.0 80.0 80.0

TABLE 4. (cont.)

	DEC.	000011		DEC.	10	0.00	٥٠١	0.0	0.0	1 1	1	1 1	ı	1	ı		DEC.	00000
	NOV.	000011		NOV.	2 - 2	0.0	0.0	0.0	0.0	1 1	ı	1 1	ı	1 1	I		NOV.	00000
	OCT.	00000		OCT.	2.5	2.0	0.0	0.0	0.0	2.6	2.8	0.0	0.0	2.7	i		OCT.	0.0000000000000000000000000000000000000
	SEP.	0.0		SEP.	1 (	-1	1 1	1	2.7	ıı	1	1 1	8.0		1		SEP.	0.0 0.0 0.0 11.6 0.0
•	AUG.	000000		AUG.	1 1	0.0	0.0	200	0.0	0.0	0.0	2.0	0.0	0.0	0.0		AUG.	00400000001 000
(cont.	JULY	00000		JULY	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	8.1	ae	JULY	000000000000000000000000000000000000000
ginata	JUNE	0.0 3.1 0.0 2.6	taylori	JUNE	ı	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	scrippsae	JUNE	MV00000001000
Brosmophycis marginata	MAY	00000	chilara	MAY	0.0	1 1	0.0	0.00	0.0	000	0.0	0.0	0.0	0.0	0.0	Ophidion s	MAY	00000000001111
osmophy	APR.	00000	Ü	APR.	0.0			000	0 0	0		0.0	0 0	1 1	1	Opl	APR.	
Br	MAR.	0.0		MAR.		i I	1 1	1	0.0	0.0	0.0	0.0	0.0	0.0	ı		MAR.	000000000000000000000000000000000000000
	FEB.	00000		FEB.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1		FEB.	000000000000000000000000000000000000000
	JAN.	0.00		JAN.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 1	ı		JAN.	000000000000000000000000000000000000000
	NC	60.0 40.0 60.0 32.0		NC	!									40.0			NC	8 4 4 4 7
	STATION	83.0 87.0 87.0 107.0		STATION	73.0	77.0	77.0	80.0	90.0	97.0	107.0	107.0	113.0	115.0	123.0		STATION	80.0 83.0 83.0 87.0 100.0 1107.0 1117.0 1118.5 1119.0 120.0

TABLE 4. (cont.)

	!		!	1:100 00
	DEC			000000000000000000000000000000000000000
	NOV.	111111111111	11111	MOV.
	OCT.	24.2 20.0 20.0 20.0 1.8 1.0 1.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0		OCT. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
	SEP.	17.5 8.2 8.2 8.2 2.6 5.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.000	SEP. 5.2 2.8 2.7 2.7 8.5.2 7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
	AUG.	13.9 0.0 0.0 17.2 17.2 24.5	0.00	AUG. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
(cont.)	JULY	0000 0000000	000	
	JUNE	000000000000000000000000000000000000000	0.0 0.0 0.0 0.0 - - - Ceratioidei	0 010 00000000000000000000000000000000
Ophidion scrippsae	MAY	1000  000000	0.0 0.0 	MAX
Ophidio	APR.	0000 000	00000	APR.
	MAR.	0000 1 100 10000		MAAR. 00.0100000000000000000000000000000000
	FEB.	0000 00 0000	0.0 18.7 -	FEB.
	JAN.	000000000000000000000000000000000000000	200000000000000000000000000000000000000	O.000000000000000000000000000000000000
	STATION	120.0 35.0 120.0 40.0 120.0 65.0 121.2 34.0 121.3 37.0 123.0 42.0 123.0 34.0 123.0 30.0 130.0 30.0		STATION 90.0 90.0 93.0 65.0 93.0 85.0 93.0 100.0 93.0 1100.0 93.0 1100.0 93.0 1100.0 100.0 75.0 100.0 90.0 103.0 45.0 103.0 46.0 103.0 80.0 103.0 80.0 103.0 80.0 103.0 85.0 107.0 85.0

TABLE 4. (cont.)

	DEC.		DEC.	1	DEC.	1 1 1 1 1 1
	NOV.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NOV.	ı	NOV.	11111
	OCT.	1 0000000000000000000000000000000000000	OCT.	3.0	OCT.	000011
	SEP.	m 0°	SEP.	0.0	SEP.	0.0011
	AUG.	000   W 000 0 0 1   0 0 0 0 0 0 0 0 0 0 0 0 0 0	AUG.	0.0	AUG.	0.0 0.0 0.0
(::	JULY	000000000000000000000000000000000000000	JULY	0.0	JULY	000000000000000000000000000000000000000
i (cont	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	0.0 0.0 Exocoetidae	JUNE	00000
Ceratioidei (cont.)	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	0.0 Exocoe	MAY	0000
Cer	APR.	000 0000000000 000000000000000000000000	APR.	0.0	APR.	000
	MAR.		MAR.	0.0	MAR.	000
	FEB.	000000 000 0000 0 000	FEB.	0.0	FEB.	000011
	JAN.	30000000000000000000000000000000000000	JAN.	0.0	JAN.	000000
		8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		35.0	57	90.0 40.0 40.0 45.0 65.0
	STATION	1100.0 1110.0 1110.0 1113.0 1113.0 1117.0 1117.0 1123.0 1123.0 1123.0 1137.0 1137.0	STATION	130.0	STATION	100.0 107.0 117.0 123.0 130.0

TABLE 4. (cont.)

	DBC.	111100000001111111	DEC.	0.0	DEC.	00.01		DEC.	1
	NOV.	0000 00	NOV.	0.0	NOV.	0.00		NOV.	ı
	OCT.	0 0000000000000000000000000000000000000	OCT.	0.0	OCT.	0000011		OCT.	0.0
	SEP.	0000 0 0	SEP.	ł	SEP.	0.00		SEP.	1
	AUG.	111180000000000000000000000000000000000	AUG.	0.0	AUG.	0.0000000000000000000000000000000000000		AUG.	1
	JULY	000000000000000000000000000000000000000	JULY	0.0	JULY 3.0	80000001		JULY	3.0
s saira	JUNE	1.9 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JUNE	0.0 0.0 Trachipteridae	JUNE	0.00000	ses spp	JUNE	1
Cololabis saira	MAY	1.9 2.9 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	0.0 Trachip	MAY 0.0	07.00003.7.0	Melamphaes spp	MAY	0.0
O	APR.	0 0000000000000000000000000000000000000	APR.	0.0	APR.	0002000		APR.	0.0
	MAR.	1111110000000000000	MAR.	0.0	MAR.	00011		MAR.	l
	FEB.	0.00 0.0000000000000000000000000000000	FEB.	0.0	FEB	0.00011		FEB.	1
	JAN.	0.0000000000000000000000000000000000000	JAN.	3.9	JAN.	0.0000		JAN.	0.0
	N	75. 900.0 900.0 775.0 800.0 880.	N	40.0	855.	75.0 75.0 90.0 75.0 75.0 65.0		NO	0.09
	STATION	60.0 60.0 73.0 77.0 77.0 77.0 90.0 90.0 90.0 90.0 117.0 127.0	STATION	83.0	STATION 50.0 60.0	67.0 70.0 77.0 80.0 83.0 93.0 93.0		STATION	60.0

	DEC.	1 1 1	1	L	i	1	ı	L	ı	I	ı	1	1	ı	ı	ŀ	ı	1 1	ſ	ı	1 0	0.0	9 1	0.0	ı	1 0		ı	ı	1	1 1	0.0	1	ı	1 1	ı	1
	NOV.	1 1 1	1	1 1	1 1	1	1	1 1	1	I	ı	I		ŀ	ı	ı	I	1 1	1	ı	1 0	0.0		0.0	ı	1 0		1	ı	1	1 1	0.0		ı		1	ı
	OCT.	000	0 1	0.0	# · 7	0.0	0.0	0.0	ı	0.0	0.0	0.0	000	) 	0.0	ı		0.0	0.0	1	0.0	0.0	0 1	0.0	0.0	0		ı	0.0	1 0	0.0	0.0	1	1.5	10	) ) )	0.0
	SEP.	1 1	1 1	1 1	1 1	t	ı	1 1	1	Ι	ı	ı	1	ı	1	ı	ı	1 1	1	I	1	l I	ı	ı	ı	ŧ 1	- 1	1	1	4		1	ı	1	1 1	1	ł
	AUG.	1 }	1 1	1 1	1 1	ı	I	1 1	1	1	ı	1	1 1	1	1	ı	ł	1 1	1	ı	1 (	0.0	0 1	1	1	1 9		0.0	3.0	m c	0.0	0.0	0.0	0.0	1 9	0 1	0.0
ont.)	JOLY	0.00	3.0	0.0	10.1	0.0	0.0	0.0	6.6	-	o. 0.	0.0			6.8		0.0	0.0	0.0	3.5			000	0.0	2.3	0.0		2,8	0.0		0.0	2.5	0.0	2.4	0.0	3.1	0.0
spp. (c	JUNE	1 1	1 1	ı	1 1	ı	ŧ	1 1	1	ı	ı	1	1 1	ł	t	ı	ı	1	1 1	1	1	6.3	0.0	7.3	0.0	2.4	, c	2.9	0.0	0.0	3,3	C   C	5.0	0.0	0.0	0.0	2.9
Melamphaes spp. (cont.)	MAY	18.2	0 0	5.8	0 0		0.0	2.7	12.0	3.0	1 0	0.0	0.0	2.7	3.4	3.5	3° 4	0.0	0.0		0.0	1 0											. o	0.0	2.7	0.0	0.9
Melan	APR.	000	0.1	0.0	1 1		2.5		ı	1	0.6	2.7	0.7		7.9	ı	2.9	3.2	8.7	1	ω	0.0	0.0	0.0	0.0	10			6.3			0	0.0	2.8	2.8	0.0	6.3
	MAR.	 	1 1	ı	l i	1	I	1 1	ı	I	1	ı	1 1	1	ı	1	ı	1	1 1	1	1	ŀ	1 1	1	1	ı	1 1	ı	ı	l	1	ŧ I	ı	1	1	1 1	ı
	FEB.		1 1	ı	1 1	ı	1	1 1	ı	1	ı	ı	1 1	i	1	1		3.2	1 1	1		0.0		2.5	ı	10	0.1	1	0.0	1 (	0.0	1 0		0.0	1 0	0.0	0.0
	JAN.	0.0	0.0	0.0		0.0	0.0	0.0	0	ı	0.0	1 (	0.0		0.0	1	1 (	2.8	1 1	i	ı	0.0	0.0	3.0	1	1 0	0.0	1	0.0		0.0	0	•	0.0	1 0	0.0	0.0
	N	65.0	85.0	0.06	85.0	0.06	55.0	0.09	75.0	80.0	0.06	52.0	20.0	75.0	80.0	85.0	65.0	70.0	80.0	85.0	0.06	55.0	60.0	70.0	80.0	85.0	0000	75.0	80.0	85.0	90.0	0.00T	65.0	70.0	75.0	85.0	0.06
	STATION	0.09	0.09	0.09	63.0	63.0	67.0	67.0	67.0	67.0	0.79	70.0	70.0	20.07	70.0	70.0	73.0	73.0	73.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	80.0	80.0	80.0	80.0	80.0	80.0	83.0	83.0	83.0	83.0	83.0

	DEC.	001111110011000000000000101111111111111
	NOV.	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ocr.	00101010001100100101001000100001000010001000100010001000100010000
1	SEP.	000040 7080808080 111111111111111111111111111
	AUG.	
ont.)	JULY	
p) 'dds	JUNE	
Melamphaes spp. (cont.	MAY	000000004100080048000000000000000000000
Melam	APR.	
	MAR.	111111100010010001010001111100111000000
	FEB.	
	JAN.	0 0000 0 00 00 00 00 00 00 00 00 00 00
	Z	88890000000000000000000000000000000000
	STATION	887.00 870.00 87

	DEC.	
	NOV.	
	OCT.	
	SEP.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	AUG.	00000   1 000   000
ont.)	JULY	000000000000000000000000000000000000000
Melamphaes spp. (cont.)	JUNE	
phaes s	MAY	000000000000000000000000000000000000000
Melan	APR.	000000 0000000000
	MAR.	100000000000000000000000000000000000000
	FEB.	1000%0100001110100010001000100010001
	JAN.	04001010004100000001410001100000000000
	STATION	110.0 45.0 110.0 1

	DEC.	0.0	1-1-1	0.0	1111		DEC.	000 0000000
	NOV.	0.0	1 1 1	0.0	1111		NOV.	0.00 0.00 0.00 0.00 0.00 0.00 0.00
	OCT.	0.00	000		2°8 0°0 0°0		OCT.	00000 0 00 00 00 00 00 00 00 00 00 00 0
	SEP.	1111	1 1 1	11100			SEP.	00000000
	AUG.	3.3	20.0	0000	0000		AUG.	11100000010000000000000000000000000000
	JULY	3.3 12.3 0.0		0000		snson	JULY	N00000000 00 0000 00000000000000000000
Poromitra spp.	JUNE	0.0		2200	0000	susonidsiq :	JUNE	11100000010m000M110000000
Poromit	MAY	0.00	3000	0000,	0.00 0.00	Scopelogadus	MAY	000 1 00000 000000000000000000000000000
	APR.	0.0	0.00	00000	0000	Scope	APR.	10000000100010010000000
	MAR.	1 1 1 1	1 1 1	0.0	0.0		MAR.	0000 01000 0000000000000000000000000000
	FEB.	0.0	0.00	0 00	0.0		FEB.	
	JAN.	0.0	0.0	1 1 1 1	0.00		JAN.	0.0001211011011110020010
	N	80.0 70.0 75.0 85.0	110.0 80.0 90.0	00000	85.0 90.0 35.0		N	75.0 60.0 55.0 60.0 770.0 770.0 770.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 775.0 770.
	STATION	73.0					STATION	63.0 777.0 777.0 880.0 880.0 890.0 990.0 990.0 993.0 993.0 100.0

TABLE 4. (cont.)

			SC	opelog	Scopelogadus bispinosus	pinosu	s (cont.	( • :				
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JOLY	AUG.	SEP.	OCT.	NOV.	DEC.
	00000 0000	00000 00	0000 000	000000000000000000000000000000000000000	00000	000000000000000000000000000000000000000	000   00000 0000	000400000000000000000000000000000000000		M0000 10100	1111111111111	111111111111
107.0 110.0 110.0 110.0 113.0 113.0 113.0 113.0 117.0	33.200000000000000000000000000000000000	00 000		000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	0.0000000000000000000000000000000000000	0.0001 800001 1	0	000 0 0	111111111111	11111111111
STATION 110.0 75.0	JAN.	FEB.	MAR.	Macrc APR.	APR. MAY JUNE JULY 0.0 0.0 0.0 2.8	Sus grac JUNE 0.0	JULY 2.8	AUG.	SEP	OCT	NOV	DEC.
STATION	JAN.	FEB.	MAR.	APR.	Syngnat	Syngnathus spp	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
77.0 53.0 77.0 70.0 90.0 32.0	0.0	000	1 1 1	0.0	0.0 0.0 Agor	0.0 0.0 0.0 Agonidae	0.0	0.0	0.0	0.0	0.0	3.0
STATION 70.0 90.0	JAN.	FEB.	MAR.	APR. 0.0	MAY 0.0	JUNE	JULY 3.1	AUG.	SEP.	OCT.	NOV.	DEC.

TABLE 4. (cont.)

	DEC.	00000		DEC.	110	000	0.0	0.0	0.0	1-1	1 1	1 1	1	1	1	1 1		DEC.	1111
	NOV.	0000011		NOV.	110	000	0.0	0.0	0.0	1 1	1-1	1 1	ı	1	ı	1 1		NOV.	1111
	OCT.	000000		OCT.	0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		OCT.	0000
	SEP.	0.111011		SEP.	1 1 1	1 1	1 1	1-1	0.0	I I	1-1	1 1	ı	1	0.0	0.0		SEP.	1 1 1 1
	AUG.	1000000		AUG.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0		AUG.	0.0
_	JULY	000000		JULY	0000	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	00.0	oratus	JULY	0000
(cont.	JUNE	0000000	idae	JUNE	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.5	3°T	IS marmo	JUNE	0.0
Agonidae (cont.	MAY	0000000	Cottidae	MAY	2.5	3.0	0.0	0.0	3.0	14.2	2.0	0.0	0.0	0.0	0.0	0.0	nichthy	MAY	0000
A	APR.	003000000000000000000000000000000000000		APR.	2.6	000	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Scorpaenichthys marmoratus	APR.	2.0 0.0 0.0 0.0
	MAR.	0.0		MAR.	111	1 1	1 1	0.0	1.7	0.0	0.0	23.5	0.0	0.0	0.0	00.0		MAR.	0.0
	FEB.	0.000000		FEB.	1 1 0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		FEB.	2.3
	JAN.	000000		JAN.	0000	0.0		0 0	0.0	0 0	0 0			0 0		0 0		JAN.	0.0800
	2	43.0 51.0 55.0 45.0 30.0		Z	52.0 52.0	0.09	75.0	40.0	50.0	30.0	40.0	30.0	30.0	35.0	33.0	35.0		7.	50.0 55.0 29.0
	STATION	83.0 83.0 87.0 87.0 100.0		STATION	80.0	80.0	80.0	83.0	87.0	97.0	97.0	100.0	103.0	107.0	110.0	120.0		STATION	67.0 67.0 70.0 100.0

TABLE 4. (cont.)

	DEC.	1.1		DEC.	0.0		DEC.	0000		DEC.	1 1		DEC.	
	D			D		1	D						Д	
	NOV.	1-1		NOV.	0.0		NOV.	0.00		NOV.	1 1		NOV.	1111111111111
	OCT.	0.0		OCT.	0.0		OCT.	00000		OCT.	2.8		OCT.	0.000.000.000.000.000.000.000.0000.0000.0000
	SEP.	0.0		SEP.	111		SEP.	0.0		SEP.	1 1		SEP.	0 00
	AUG.	0.0		AUG.	000		AUG.	00000		AUG.	0.0		AUG.	
	JULY	0.0	S	JULY	0.0		JULY	0000		JULY	0.0		JULY	800000000000000000000000000000000000000
Cyclopteridae	JUNE	0.0	pictus	JUNE	000	is spp	JUNE	00000	Scorpaenidae	JUNE	0.0	na spp.	JUNE	000000000000000000000000000000000000000
Cyclopt	MAY	0.0	Oxylebius	MAY	2.8 0.0 0.0	Zaniolepis spp	MAY	22.00	Scorpa	MAY	0.0	Scorpaena spp	MAY	00000000000000
	APR.	5.0	KO	APR.	0.0	2	APR.	00000		APR.	0.0		APR.	00000000000000
	MAR.	0.0		MAR.	0.0		MAR.	0.00		MAR.	0.0		MAR.	000000000000000000000000000000000000000
	FEB.	0.0		FEB.	0.00		FEB.	0.0		FEB.	0.0		FEB.	000000000000000000000000000000000000000
	JAN.	0.0		JAN.	0.0 2.1 0.0		JAN.	0.0		JAN.	0.0		JAN.	
	STATION	67.0 55.0 110.0 35.0		STATION	83.0 55.0 97.0 30.0 103.0 30.0		STATION	83.0 43.0 87.0 45.0 90.0 45.0 93.0 28.0 103.0 35.0		STATION	130.0 60.0 153.0 25.0		STATION	1000 107.0 45.0 107.0 50.0 1107.0 60.0 1110.0 65.0 1113.0 35.0 1117.0 55.0 1117.0 65.0 1118.0 39.0 120.0 45.0 120.0 65.0

TABLE 4. (cont.)

	DEC.		ı	i	ı	ı	1 1	ı	1	ı	I	ı	ı		DEC.		ı	1	1	ı	1	ı	ı	i	ŀ	1 1	1 1	1	1	ı	1	ı	1	1	ı	ı	ı	١	ı	1	ı	ı	ı
	NOV.		ı	ı	ı	ı	1 1	ı	ı	ı	ı	ı	ı		NOV.	ı	ı	1	ı	1	ı	ı	ı	ı	1	1 1	1 1	1	1	ı	1	ı	ı	ı	ı	F	1	ı	ı	i	i	I	ı
	OCT.	0 0	0.0	1	0.0	0.0	1 0	000	200	0.0	0.0	0.0	i		OCT.	2.2	2.4	1	2.4	44.0	24.4	1	2.2	i	0.0	1 0	•		0	1	2.9		2.4		0.0	0.0	0.0	0.0	1	0.0	1 9	0.0	0.0
	SEP.	0 0		ı	ı	ı	1 0		0.0			١	1		SEP.	1	ł	1	ı	1	ı	1	i	ı	ı	ł	1 1	. 1	1	ł	ı	1	ı	1	1	ı	ı	I	1	ı	ı	1	1
	AUG.	3.0	2.9	2.9	25.8	19.7	0.0	C * T				æ :			AUG.	ı	ı	1	ı	1	ı	ı	1	ł	ı	ı	1	1	ı	1	1	1	ı	1	ı	ı	í	ı	ı	ı	1	1	1
nt.)	JULY	1 .			8.2				٠				ı		JULY		ł	55.6	0.0	7.2	8.9	33.1	2.8	5.7	2.8	0.0	0.0	, c		13.3	10.0	6.3	0.0	3.4	0.0	5.9	0.0	13.4	64.4	24.4		بر د در	3.9
pp. (co	JUNE	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ı	Sebastes spp.	JUNE		1	1	ı	ı	1	ı	ı	ı	1	ı	1	1 1	ı	1	ı	ı	t	1	ı	ı	ŧ	ı	ı	1	ŧ	ı	ı
Scorpaena spp. (cont.)	MAY	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	Sebast	MAY		1	1	2.5			48.6				17.6				11.5		6.1	6.2	6.3	2.9	48.5	33.7	20.6	6.3	27.0	0.9	18.2	ı
Scor	APR.		1	1	ı	1	10	0.0	0.0	0.0	0.0	0.0	0.0		APR.		ı	1	ı	1	0	0.0			16.3	1 0	ر د د د د د	13.0	7.5	0 1	1	ı	ı	ı	5.7	16.7	10.1	11.0	ı	1	1	1 4	0.0
	MAR.	0 0	0.0	1	1	0.0		0.0			0.0	0.0	ı		MAR.		ı	1	1	ı	ı	ı	ı	1	ı	ŀ	ı	1 1	ı	1	1	ı	ı	ı	j	ı	F	ı	ı	ı	ł	ı	ł
1	FEB.		0.0	1		0.0			0		0.0	0.0	ı		FEB.		ł	ı	ı	1	ı	ı	ł	ı	i	1	ı	1 1	ı	١	ı	ı	ı	ı	ı	ı	ı	I	1	ı	ı	ı	1
	JAN.	0	0 1	1	0.0	0.0	1 0	0.0	0.0	0.0	0.0	0.0	0.0		JAN.		1	ŧ	36.8	327.6	24.5	1	0.0	1	0.0	1 0	0.0	27.7	* 0	•	0.0	ı	1	ł	0.0	144.6	39.1	0.0	t	0.0	ı	1	0.0
	N	0 20	20.00	65.0	70.0	0.09	65.0	35.0	25.0	30.0	23.0	50.0	26.0		N	52.0	0.75	0.00	52.0	55.0	0.09	65.0	70.0	75.0	80.0	85.0	90.0	52.0	0.09	65.0	70.0	75.0	80.0	85.0	0.06	50.0	55.0	0.09	65.0	70.0	75.0	80.0	0.06
	STATION				123.0										STATION	53.0	27.0	57.0	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	60.0	63.0	0.00	63.0	63.0	63.0	63.0	63.0	63.0	67.0	0.79	67.0	67.0	67.0	67.0	67.0	0.79

	DEC.	ı	i	ı	H	1	1	1	ı	1	ı	ı	ı	ı	ı	1 1		2.9	23.8	1 *	4.	18.1	ı	ı	ı	1 1	33.5	16.7	1 0	0.0	0.0	1	ı	ı	1 0	7.5	12.0	22.6	0.0	0.0
	NOV.	ŧ	1	ı	i I	1	1	1	1	1	1	1	i	į	ı	1 1	1	0.0	0.0	1 (	2.6	0.0	1	1	I	1 1	8.9	13.7	10	0.0	0.0	1	ı	1	10		0.0	12.9	0.0	0
	OCT.	3.4	0.0	0.0	1 0	0 1	0.0	) ) )	0.0	0.0	1	0.0	0.0	1 4	0.0	1 1	0		6.2	1 0	0.0	0.0	1	0.0	1 0	0.0		0.0	1 0	0.0	0.0		0.0	1 1	0.0	0°C	14.9	2.2	0.0	0.0
 	SEP.	ı	t	ı	1	1	1	1	1	1	1	ı	ı	i	1	l	)	1	1	ı	1 1	1 1	ı	ı	ı	†	ı	1	ł	ŧ I	1	1	1	ı	l	1 1	1	1	I	1 1
	AUG.	ı	ı	ı	1	۱ ۱	-1	ı	1	ł	1	i	ı	ı	ı	1	0	) ) )	19.3	1 4	0.0	1 1	1	F	ı	1 9		0.0	1 0	0.0	0.0	3,4	0.0	3.3	0.0	0.0	300	6.2	2.4	15.1
ıt.)	JULY	29.8	27.2	0.0	, e	0,0	13.6	17.0	15.7	27.0		18.7	0.0	0.0	25.9	6.1	C . T	o n I	27.0	1 (	0.0	0.0	0.0	0.0	3,2	3.5	* 0 7	0.0	1 4	14.0	2.0	2.8	0.0	0.0	n 0	2.8	15.1		12.8	2.8
p. (cor	JUNE	ı	ı	ı	ŧ	1 1	1	ı	1	1	1	i	ł	ı	1	ı	٥١	0.7	9.4	1	9.0	17.0	1	7.3	4.7	0.0		15.2	1 0	J. 6. 4.	7.7	11.7	0.0	3.0	m i	n. 0	0.0	10.2	28.7	0.0
Sebastes spp. (cont.)	MAY	5.9	14.7	23.8	1	A 21	T 0	7.7.	T	25.6	) ) ) 	2.8		8 9		0.0	0.0	0.7	1	1	24.9	6.7	20.6	0.0	0.0	0.0	o . * I	22.3	1 0	12.2	2.8	0.0	15.8	0.0				19.0		21.2
Seba	APR.	0.0	0.0	42.1	36.2	0.0	0		5.2	0.0	)	0.0	0.0	0.0	0.0	ı	1 0	6.7	0.0	1	0.0	0.0		0.0	1 (	0.0	O . T C	30.0	1 0	200	0.0	5.8	0.0	0.0	0.0	16.3	000	257.8		0.0
	MAR.		1	ı	ı	<b>s</b>	)	1	l !	1	ı	1	ı	1	ı	I	1	1 1	1	ı	1	1 1	ı	ı	ı	1	1	i	1	ı	1 1	1	i	ı	ŀ	10	0.7	7 . 1	1	l I
	FEB.		ţ	1	I	ı	1		1 1	275.9	113.9	9.4	0.0	1	0.0	ı	1 5	78.8	182.4	3.0	0.0	0.0	1	1	1	1	15.5	18.7	12.8	3.0	0.0	0 1	0.0	1	0.0	31.0	36.6	133.5	79.0	24.9
	JAN.		32.7	0.0	10	0.0	C	٥	0	103.4		8.4	12.0	1	0.0	1	1 :	1111	16.9	1	4.6	3.0		1	1	1 0	2000	132.5	1 (	22.1	4 8	1	0.0	ı	0.0	1.92	13.4	48.3	227.0	0.0
	STATION																																							83.0 60.0 83.0 65.0

TABLE 4. (cont.)

	DEC.	4.08.20.0
	NOV.	11111111111111111111111111111111111111
	OCT.	0.0000000000000000000000000000000000000
	SEP.	0.0000000000000000000000000000000000000
	AUG.	
it.)	JULY	10000000000000000000000000000000000000
p. (con	JUNE	222266 232226 232226 232226 232226 232226 232226 232226 2326 2326 23226 2326 23
Sebastes spp. (cont.)	MAY	2.7
Seba	APR.	25.0 25.0
	MAR.	1426.5 1486.5 100.0
	FEB.	20.2 0.0 0.0 0.0 111.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
	JAN.	10.0 10.0
	Z	0.000000000000000000000000000000000000
	STATION	88888833000000000000000000000000000000

	DEC.	1 1 1	1-1	1 1	1	1	1 1	1	1 1	ı	ı	I	1 1	ı	1 1	ı	1	1 1	ı	ŧ I	1	1 1	1	ı	l I	ı	ı	ı	1 1	ı	1 1	ı
	NOV.	111	1 1	1 1	1 1	l †	1 1	1	1 1	ı	ı	ı	1 1	1	1 1	4	l	1 1	ı	1 1	1 1	1	1 1	1	1 1	t	1	t	1 1	ı	1 1	1
	OCT.	0.0	00.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0		2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 0	000	0.0	0.0	0.0
	SEP.	1 1 1	1 1	1 1	1	1 (	1 1	1	1 (	1	1		0.0	1	1 0	0.0	0.0	1 1			0.0		1 (	t	1	1	-			0.0		0 0
	AUG.	0.00	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	2.5	000	0.0	000	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	1 1	0.0	3.0	0.0	0.0
t.)	JULY	0.0	0.0	0.0	0.0	ı i	1 <	2.9	0.0	0.0	2.8	2.8	000	0.0	8 · Z	0.0	0.0	000	) I	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 9	0.0	0.0	5.4	
p. (con	JUNE	2.7	2.8	0.0	2.8	0.0	0.0	0.0	5.6	0.0	0.0	2.5	0.0	0.0	0.0	5.0	2.8	0.0	) I	0.0	0.0	0.0	2.0	0.0	0.0		0.0	1 :	14.9	0.0	2.8	13.7
Sebastes spp. (cont.	MAY	0000	3.2	36.2	20.8	9.8	0.0	0.0	r, c	0.0	0.0	19.9	0.0	0.0	0.0	0.0	0.0	9.0		0.0	39.0	0.0	000	3.0	0.0		0.0	1	1 1	1		21.7
Seba	APR.	22.2 0.0 0.0	26.6	2.7	0.0	5.5	7.7	0.0	91.9	0.0	0.0	93.8	30.5	5.1	0.0	17.0	61.1	0.0	) - I	0.0	111.2	29.0	33.4	13.4	5.6		0.0	1	0.0	2.6	0.0	28.6
	MAR.	0.0	19.4	0.0	0.0	0.0	0.0	00.0	49.1	0.0	0.0	35.0	0.0	0.0	0 90	10.8													9.0	5.4	6.	4.00
	FEB.	0.0	14.0	0.0	0.0	6.9	0.0	0.0	3.0	0.40	) •	30.2	22.1	2.7		9.3	77.5	2.5		2.7	11.3	0.0	0.0	2.8	0.0	2 . 2	0.0	t	12.6	2.7	0.0	13.3
	JAN.	0.0	24.5	13.3	0.0	2.7	2.8	0.0	13.4					0.0	١٥	0.0		0.0	0	7.8	0.0	16.5	0.0	0.0	0.0	(	1.9	ı		000		
	STATION	97.0 60.0 97.0 75.0 97.0 90.0	30.	35.	45.	35.	40.	60.	32.	40.	70.	33.	0.0	45.	75.	35.	0 40.	7 45.	27.	26.	35.	0 40.	45.	55.	09 60.	65.	39.	5 35.	33,		35.	45.

TABLE 4. (cont.)

	DEC.		DEC.	0.0
	NOV.	1111111111111111111111111111	NOV.	0.0
	OCT.	000   00   0000000040000000000000000000	OCT.	000 111000
	SEP.	8000 000000 00 00	SEP.	0.0
	AUG.	000000000000000000000000000000000000000	AUG.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
nt.)	JULY	Q	JULY	0.0000000000000000000000000000000000000
spp. (cont.)	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	0000
Sebastes sp	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	11.7 11.7 3.4 3.4 6.0 0.0 0.0
Seba	APR.	190.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 184.0 198.0 198.1 198.1	APR.	000 0000
	MAR.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	MAR.	0.0
	FEB.	177 177 177 177 177 177 177 177 177 177	FEB.	0.0000
	JAN.	44010010001140000000000000000000000000	JAN.	0.00
	N	0.000000000000000000000000000000000000	Z	80.0 90.0 60.0 65.0 75.0 80.0 80.0
	STATION	12200 12200 12200 12200 12200 1223 1223	STATION	63.0 63.0 73.0 73.0 73.0 83.0 83.0

TABLE 4. (cont.)

	DEC.		DEC.	00000000111111111111111
	NOV.	*	NOV.	0000000011111111111111
	OCT.	3.0 2.5 2.5 2.0 2.0 2.0 0.0 0.0 3.7 3.2 3.2 5.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1	OCT.	000700000000000000000000000000000000000
	SEP.	0.0 0.0 0.0 0.0 0.0 2.2 2.5 6.1 3.2 3.3 7.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1	SEP.	000000000000000000000000000000000000000
	AUG.	0.0 0.0 0.0 0.0 1.2 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	AUG.	10000000000000000000000000000000000000
	JULY	0.00 0.0000000000000000000000000000000	JULY	00000000000000000000000000000000000000
Prionotus spp.	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	000000000000000000000000000000000000000
Prionot	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	000000000000000000000000000000000000000
	APR.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	APR.	
	MAR.	000 00000000000000000000000000000000000	MAR.	0 0000000000000000000000000000000000000
	FEB.	000 00000000000000000000000000000000000	FEB.	000000000000000000000000000000000000000
	JAN.	000000000000000000000000000000000000000	JAN.	
	STATION	119.0 120.0 120.0 120.0 120.0 121.3 121.3 127.0 133.0 134.0 135.0 140.0 140.0 140.0 143.0 140.0 14	STATION	83.0 44.0 883.0 843.0 883.0 883.0 883.0 887.0 887.0 887.0 887.0 893.0 89

TABLE 4. (cont.)

1	DEC.	1111111		1	DEC.	000000000000000000000000000000000000000	DEC.	1 1 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	NOV.	1111111	11111111111		NOV.	00	NOV.	0000
	OCT.	00040000			OCT.	00000000000	OCT.	0.000
	SEP.	2   022200	0000 000		SEP.	0.00   1   0.00	SEP.	1111
	AUG.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.1 1.1 1.1 1.0 1.0 1.0 1.0 1.0		AUG.	00000000001	AUG.	0000
(cont.)	JULY	0000000	0004040 00040240		JULY	000 0000000	JULY	0.0 0.0 0.0 11.8 0.0
i	JUNE	0000000	00000 00000	idae	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	2.4
Hypsoblennius spp.	MAY	0000000	00000 0000	Clinidae	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	0.00
Hypsob	APR.		000400   00000		APR.	0.00042600000000000000000000000000000000	APR.	00000
	MAR.	0000000	00000 00000		MAR.	0.0 15.77 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAR.	1111
	FEB.	0000000	000000000000000000000000000000000000000		FEB.	0.0000000000000000000000000000000000000	FEB.	0.00
	JAN.		000000000000000000000000000000000000000		JAN.	6000000000	JAN.	2.9
	N	35.0 34.0 34.0 445.0 55.0	4 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		Z	8490.0 8493.0 930.0 850.0 937.0 90.0 90.0	Z	90.0 90.0 55.0 60.0
	STATION	120.0 120.0 123.0 127.0 127.0 127.0	130.0 133.0 133.0 133.0 133.0 134.0 137.0 137.0		STATION	83.0 83.0 97.0 103.0 117.0 117.0 117.0 120.0 123.0	STATION	60.0 73.0 77.0 77.0

	DEC.	
	NOV.	000 000000 000 0 00000 1 1 1 1 1 1 1 1
	OCT.	0 08 0000000000000000000000000000000000
	SEP.	0000000 000000000000000000000000000000
	AUG.	
	JULY	00   0000000000000000000000000000000000
(cont.	JUNE	WW. 1 00 WW. W. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Gobiidae (cont.)	MAY	00 000000000000000000000000000000000000
b	APR.	0   10000000000000000000000000000000000
	MAR.	111111111001111000101000000000000000000
	FEB.	000 00000000000000000000000000000000000
	JAN.	#0 000000000 0 0000 0000000 0000000 00 0
	Z	0.000000000000000000000000000000000000
	STATION	777.0 8880.0 880.0 8833.0 8833.0 8833.0 990.0

TABLE 4. (cont.)

	DEC.	ŧ	ı	1	1 1	ı	1	į	1	1 1	1	i	ı	ı	1 1	)	1	1 1		ı	I	1	ı		DEC.	1 1		DEC.	00000	000	0.0
	NOV.	1	ı	1	1 1	ı	1	1	ı	1 1	1	1	1	F	1 1	ı	1	1	1	ł	1	ł	ı		NOV.	1 1		NOV.	00000	0 0 0	0.0
	ocr.	0.0	0.0	0.0		)   	3.5	2.2	0.0	3.0	14.4	0.0	19.9	5.0	2.5	ı	1	1	1 1	ı	1	1	1		OCT.	0.0		OCT.	0000,		0.0
 	SEP.	2.9	0.0	7.0	4.1	2.6	0.0	2.7	2.5	\ O	14.3	0.0	26.2	3.0	ı	ı	i	1	1 1	1	1	1	ı		SEP.	1 1		SEP.	1 1 1 1	1 1 1	2.8
	AUG.	0.0	0.0	0.0	0.0	. 1	0.0	2.2	0.0	0.0		4.4	0.0	1 4	0.0	1 • 4	1.7	0.0	2.6	LT - 2	L.	) ) )	ı		AUG.			AUG.	0000		0 0
_	JULY	0.0	0.0	0.0	0.0	. 1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	ı	ı	ı	i	) (	ı	: 1	1	cus	JULY	0.0		JULY	0.0 9.6 12.6		
(cont.	JUNE	0.0	0.0	0.0	000	)  -  -	0.0	8.8	0.0	000	0.0	0.0	0.0	0.0	0.0	ı	1	ı	ŧ	1	1 1	1	1	aenigmaticus	JUNE		Labridae	JUNE	3.2000		0 0
Gobiidae (cont.	MAY		ı	1 0	0.0	•	0.0	0.0	0.0	0.0		0.0	2.3	0.0	0.0	ı	i	1	i	1	1 1		ı	Icosteus ae	MAY	0.0	Labr	MAY	0.00	0 0 0	0 0
Ŭ	APR.	0.0	0.0	0.0	000	0.0	1	ı	1	0.0		000	0.0	0.0	0.0	0.0	0.0	3.2	1	t	1 1	ı	ı	Icos	APR.	2.6		APR.	0000		
	MAR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	ı	ł	ı	i	ı	1	1 1	1		MAR.	1 1		MAR.	0.0	000	0.0
	FEB.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	1	ı	ı	1	1	1	1 1	1		FEB.	1 1		FEB.	0000		0.0
	JAN.	0.0	1.7	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0		0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	7.7	ب د د د			JAN.	0.0		JAN.	0000		0.0
	N	33.0	25.0	30.0	40.0	20.0	37.0	34.0	45.0	30.0	35.0	30.05	23.0	30.0	35.0	30.0	26.0	20.0	19.0	16.0	20.0	25.0	10.0		Z	75.0		Z	55.0 55.0 43.0 55.0	35.0 40.0 50.0	65.0
	STATION	119 0	120.0	120.0	120.0	120.0	123.0	127.0	127.0	130.0	130.0	133.0	137.0	137.0	137.0	140.0	143.0	147.0	150.0	153.0	153.0	153.0	157.0		STATION	67.0		STATION	77.0 80.0 83.0	87.0 87.0 87.0	87.0

	DEC.	000010111111111111111111111111111111111
	NOV.	0000
	OCT.	0.000 0
	SEP.	0.0000000000000000000000000000000000000
	AUG.	00000000000000000000000000000000000000
	JULY	0000000000   04m800004m0   04V4000000   000000   000000   000000   000000
Labridae (cont.	JUNE	00000000000000000000000000000000000000
abridae	MAY	90000H00000000000000000000000000000000
Ţ	APR.	707170   000   0000000000000000000000000
	MAR.	
	FEB.	
	JAN.	10001000000110001010000100000000001110000
	STATION	93.0 93.0

TABLE 4. (cont.)

 	DEC.		DEC.	1 1 1 1 1
 	NOV.	1	NOV.	1111
	OCT.	000000000000000000000000000000000000000	OCT.	0.0 0.0 0.0 31.5 2.7
	SEP.	100.00 10	SEP.	14.5 16.3 0.0
	AUG.	000000000000000000000000000000000000000	AUG.	14.6 0.0 0.0 0.0
_	JULY	000000000000000000000000000000000000000	JULY	00000
(cont.	JUNE	Pomacentridae	JUNE	00000
Labridae (cont.)	MAY	PO 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	MAY	00000
ŭ	APR.	800000000000000000000000000000000000000	APR.	00011
	MAR.		MAR.	00000
	FEB.		FEB.	00000
	JAN.	000000000000000000000000000000000000000	JAN.	00000
	2	CWUWA44080WWA8WWACWWWAAWWAAWWAAWWACWWW OOWWOOWWOOOWOWOWOWOWOWWO OOOOOOOOO	Z	30.0 33.0 40.0 42.0
	STATION	1117.0 1120.0 1120.0 1120.0 1120.0 1120.0 1120.0 1120.0 1120.0 1130.0 1131.0 1131.0 1131.0 1131.0 1131.0 1131.0 1131.0 1131.0 1131.0	STATION	100.0 110.0 120.0 123.0

TABLE 4. (cont.)

				Pome	Pomacentridae (cont.)	dae (co	nt.)					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
127.0 60.0 133.0 25.0	000	0.0	0.0	0.0	0.0	0.00	2.9	0.0	2.8	0.0	111	1 1 1
	0.00	1 1	i 1	0.0	1 1	1 1	1 1	2.7	1 1	1 1	1 1	1 1
	0.0	ŀ	1		1	ı	ı	2.6	ı	J	1	ł
	0.0	ı	ı	ı	ı	ı	ı		ı	l	ı	i
	0.0	ı	ı	1	ı	1 1	1 -	T -	1 1	1 1	1 !	1 1
	000	1 1	1 1	1 1	1 1	1	1	15.3	1	1	1	ı
	0.0	1	1	ı	ì	ı	ı	13.2	ı	1	1	ı
	2.3	1	1	ı	1	ı	ı	1	1	1	ı	ł
	2.6	1	8	ı	1	ı	ı	1	ı	1	ı	ı
				Chro	Chromis punctipinnis	nctipin	nis					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
ļ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	1 3	0.0	0.0	0.0
	0.0	0.0	° 1	0.0	0.0	0.0	2.5	0.0	ı	0.0	0.0	0.0
	0.0	0.0	ı	0.0	0.0	0.0	2.6	0.0	1	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	000	0.0	3.0	1 1	000	1 1	1 1
		0.0	0.0	0.0	0.0	0.0	0.0	ຸດ	ı	0.0	ı	1
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	ı	i
	0.0	0.0	0.0	0.0	10	0.0	0.0	0.0	0.0	0.0	1	1 1
	0.0			1				000	20.3	000	. 1	. 1
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	ı	ı
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1	0.0	ı	í
137.0 23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	l i	1 1
				Hyp	Hypsypops rubicundus	rubicun	gnp					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
97.0 30.0	0.0	0.0	0.0	0.0	3.0	0.0	4.3	0.0	1 1	0.0	i I	1-1

TABLE 4. (cont.)

	DEC.			DEC.	1 1 1 1 1		DEC.	0.0		DEC.	11111111
	NOV.	11111111		NOV.	1111		NOV.	111111111		NOV.	1111111
	ocr.	00200		OCT.	2.7		OCT.	0000000		OCT.	0000000
	SEP.	00.00		SEP.	0.011		SEP.	22.7		SEP.	1.4 0.0 0.0 2.8 2.8
	AUG.	0.00 0.00 0.00 0.00 1.10 2.22		AUG.	0.00		AUG.	000000000000000000000000000000000000000		AUG.	0.0 0.0 0.0 0.0 2.9 2.9
	JULY	0000		JULY	00000		JULY	0.00 0.00 0.00 0.00 73.00		JULY	0.00
spp.	JUNE	0000	nidae	JUNE	0.000	spp.	JUNE	00000000	gidae	JUNE	00000000
Mugil	MAY	000	Apogonidae	MAY	00000	Brama	MAY	00000000	Carangidae	MAY	0000000
	APR.	000000000		APR.	0.0		APR.	00000000		APR.	0.00
	MAR.	0000		MAR.	0.00		MAR.	000000000000000000000000000000000000000		MAR.	0000 000
	FEB.	0000		FEB.	0000		FEB.	0000000		FEB.	0000 000
	JAN.	00000000		JAN.	3.2		JAN.	0.0000000000000000000000000000000000000		JAN.	0000000
	2	30.0 445.0 45.0 30.0 226.0 25.0		7	120.0 90.0 40.0 50.0		7	75.0 35.0 80.0 90.0 80.0 80.0 40.0		7	45.0 40.0 37.0 60.0 70.0 30.0
	STATION	120.0 137.0 137.0 140.0 143.0		STATION	80.0 97.0 127.0 127.0 130.0		STATION	93.0 93.0 97.0 97.0 100.0 113.0		STATION	113.0 120.0 123.0 123.0 123.0 130.0

TABLE 4. (cont.)

	DEC.	1 1	ı	1	1	1	ı	ı	1	ı	1	1 1		DEC.	1		DEC.	1 1	ı	ı		1	1	ı	i	1	1 1	6	ı	ı	ı	1 1	1	1	
	NOV.	i Í	1	ı	1 1	ı	1	ı	1	ı	ı	1 1		NOV.			NOV.		ı	1	1 1		ı	ı	i	1	1 1	ı	i	ł	I	ii	1	ı	
	OCT.	0.0	0.0	i		1	ı	ı	t	1	ı	1 1		OCT.			OCT.	0.0	0.0	0.0	0.0	•	0.0	0.0	1 0	0.0	0.0	· • 1	0.0		0.0			0.0	
	SEP.	52.3		1 1	1 1	ı	ı	1	1	ı	ı	1 1		SEP.			SEP.		ı	ı	10			ŧ	ı		0.0	1	- 1	1	I	1 1	ı	ı	
	AUG.	0.0	1 1	4. JC	2.02	5.4	12.0	6.5	3,3	0.0	1.3	3.2		AUG.			AUG.	1.4	8.6	3.0	33.5	17.3	0.0	0.0	0.0	0.0	J. C.	0.7	0.0	0.0	0.0	0.0	0.0	0.0	
•	JULY	2.8	0.0	1	i 1	1	ł	ı	ı	ı	1	1		JOLY			JULY		0.0	0.0	0.0		2.7	2.8	14.3	12.0	0.0	,	0.0	3.1	0.0	2.0	2.7	2.7	
e (cont.	JUNE	0.0	0.0	ı		1	1	ı	1	1	ı	1		JUNE		Seriola lalandi	JUNE	0.00	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	
Carangidae	MAY	0.0	0.0	ı		1	ı	1	ı	ı	ı	1	Seriola	MAY		eriola	MAY	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	)	3.0	0.0	0.0	0.0	
Ca	APR.	0.0									ı	ı		APR.		S	APR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	i	1 1	1	1	
	MAR.	0.0		ı	1	1	1	ı	1	1	ı	ł		MAR.	1		MAR.	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	•	0.0	0		0.0		1	
	FEB.	0.0		ı	1	1 1	ı	ı	1	1	ł	ŀ		FEB.			FEB.	0.0									٠		0 0			0.0	0	ı	
	JAN.	0.0	0.0	0.0	0.0		0.0	0.0	0.0	2.5	0.0	0.0	0.00	JAN.	3.0		JAN.	0.0	0.0	0.0	0.0	0.0	000	0.0	1	0.0	0.0	0.0	0.0	0	ı	1 <		0.0	
	z	35.0	30.0	30.0	35.0	30.0	20.0	25.0	35.0	55.0	19.0	45.0	0.00	2	10.0		Z	30.0	35.0	40.0	45.0	35.0	7.00	60.0	65.0	70.0	39.0	00.00	70.0	75.0	50.0	55.0	65.0	70.0	
	STATION	133.0	137.0	140.0	140.0	143.0	147.0	147.0	147.0	147.0	150.0	150.0	133.0	STATION	157.0		STATION	103.0	107.0	107.0	113.0	11/.0	117.0	117.0	117.0	117.0	118.0	120.0	120.0	120.0	123.0	123.0	123.0	123.0	

TABLE 4. (cont.)

	DEC.	1 1 1 1 1	1 1 1 1	1 1 1 1		DEC.	1	ı	1 1	i	ı	1 1	ı	1 1	ı	ı	1 1	ı	ı	1 1	1	ı	ł	1 1	1	ı	1 1	
	NOV.	1111	1 1 1 1	1 1 1 1		NOV.	í	ı	1 i	ı	ı	1 1	ı	1 1	1	ı	1 1	ı	ı	1 1	ì	ı	ı	1 1	1	1	1 1	
	OCT.	0.000	0.0	000		OCT.	1	ı	0.0	1	0.0	0.1	0.0	0.0	1	0.0	0.0	0.0	1 4	0.0	0.0	1	0.0	0.0	٥	0.0	0.0	
	SEP.	0.00	00001	2.8		SEP.	i	ı	1 1	i	1	I I	ı	1 1	ı	ı	1 1	ı	ı	1 1	i	ı	ı	1 1	1	1	1 1	
	AUG.	11.2	0.00	10.50		AUG.	1	ı	1 1	ı	1	1 1	ŧ	1 1	ł	ı	i I	1	ı	l I	ı	ı	ı	1 1	1	ı	1 1	
(cont.)	JULY	00.000000000000000000000000000000000000	0000	0001	cus	JULY	3.1	0.9	120.1	0.6	12.4	10.01	16.6	m m	16.9	15.0	3.1	6.7	80 0	14.0	0.0	27.2	42.9	0.0	6.2	27.2	43.8	
	JUNE	0.0000	0000	000	Trachurus symmetricus	JUNE	1	1	1 1	1	1	1	1	1 1	1	ı	1 1	ı	1	1 1	ı	ı	ı	1 1	1	ı	1 1	
Seriola lalandi	MAY	00000	00000	0000	hurus s	MAY	J	0.0	0°0	0.0	17.5	000		0.0				0.0	0.0	40	27.4	1	1 0	0.0	2.7	0.0	5.6	
Serio	APR.	1111	0000	0000	Trac	APR.	1	0.0	5.4	1	23.2	0.1	1	l l	1	0.0	0.0	0.0	1	1 1	1	1	36.1			7.9	34.1	
	MAR.	0000	0000	0000		MAR.	I	ŀ	1 1	1	1	1 1	ı	1 1	ı	ı	1 1	1	ı	1 1	1	1	ı	1	1	ı	1 1	
	FEB.	0000	0000			FEB.	1	ı	1 1	1	1		ı	1 1	1	ì	1 1	J	ı	1 1	1	1	ı	1	1	i	1 1	
	JAN.	0000	0000	0000		JAN.	1	I	0.0	1	0.0	0.0	0.0	1 1	1	0.0	0.0	0.0	1 (	0.0	1	1	0.0	0.0		0.0	0.0	
	N	34.0 45.0 50.0 60.0	35.0 40.0 45.0 55.0	25.0 45.0 50.0 50.0		Z	90.06	65.0	75.0	85.0	90.0	60.0	70.0	75.0	85.0	90.0	55.0	60.09	65.0	75.0	80.0	85.0	0.06	20.0	75.0	80.0	0.06	
	STATION	127.0	130.0	133.0 137.0 137.0		STATION	57.0	60.0	0.09	60.0	60.09	03.0	63.0	63.0	63.0	63.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	70.0	70.0	70.0	70.0	

	DEC.	1-1	1	1	1 1	1	1	0.0	0.0	1 0		ł	1 4	0.0	0 1	0.0	1	1	1	1	1	1	ı	0.0	0.0	0.0	0.0	ı	1	1 1	1	1			0.0			1	1
	NOV.	1.1	1	ı	1 1	1	ı	0.0	0.0	0	) ) )	ı	1	0.0		0.0	1	ı	1	I	ı I	I	I	0.0	0.0	0.0	0.0	1	ı		- 1	ı	0.0	0.0	42.0	47.0		ı	ι
	ocT.	000		0.0	0		0.0	0.0	0.0	(	• • •	0.0		0.0	0.0	0.0	)	0.0	F	0.0	1 1	ı	1	0.0	0.0	0.0	0.0		0.0	1 0					0.0			í	0.0
	SEP.	1 1	ı	ı	1 1	ı	1	ı	ı	1 1	1 1	1	1	1		1	1	ı	ı	ı	1 1	1	1	ı	1 (	1	ı	1	I	ı	1	ı	(	1	1 -	! !	- 1	ł	1
(	AUG.	1 1	ŧ	ı	1 1	1	ı	0.0		1 !	1 1	1	1	0.0	3.5	0.0	0.0	0.0	3.3	0.0		1	1	0.0	0.0		0.0	0.0	0.0	1 0	0.0	0.0	0.0	0.0	0.0	0.0		3.3	0.0
(cont.	JULY	0.0		6.5	24.4	0.0	12.9	0.0	0.0	0.0	32.7	27.6	15.9	0.00	20.0	000	, m	0.0	0.0	0.0	1 1	1	1	2.7	5.0		0.0			0.0		2.5			0.0				0.0
tricus	JUNE	1 1	1	1	1 1	- 1	1	15.7	83.5	500.3	1.07	0.0	45.0	0.0	0.0	000	2.9	0.0	6.1	68.7	I 1	1	1	0.0	0.0	3.2	0.0	5.9	14.4	0.0	000	0.0	10.2	0.0	2.6	000	, a	0.0	18.4
Trachurus symmetricus	MAY	12.3	0.0	0.0	0.0	900	0 00	1	2.8	0.0	26.6	0.0	-		T.0	16.7	5.7	94.8	55.9	12.1	21.1	2.5	2.5	0.0	0.0	7.0	0.0	32.5	30.3	65.5	105.8	0.0	5.2	2.8	0.0	0.0		0.0	2.8
achurus	APR.	5.6		9.5	1 0				8.7			0.0	ı	3.0	3.2	12.0	8.7	0.0	0.0	0.0		1	1	0.0	0.0	000	5.7	0.0	0.0	2.6	0.44	9.5	3.0	0.0	0.0	0.0	7.6	11.6	3.0
Tr	MAR.	1 1	1	ı	1	1 1	1	1	1	l	1 1	ı	ı	ı	1	1 1	1	1	1	ı	t- I	ł	1	1	0.0	1 1	1	ı	ı	I	1 1	1		0.0		ı	1 1	1	1
	FEB.	0.00		0.0	1	1 1	1	0.0	0.0	1 4	0.0	1	1	0.0	0.0	0	•	0.0	1	0.0	<b>!</b>	ı	1	0.0	0.0	0.0	0.0	1	0.0	1 0	۲۰۶	0.0	0.0	0.0	0.0	0.0	0.0	ı	0.0
	JAN.	0.0		0.0	ı	1 1	1	0.0	0.0	1 0	0.0	1	ı	0.0	0.0	0	•	0.0	- 1	0.0	1 1	1	1	0.0	0.0	0.0	0.0	1	0.0		0.0			_	0.0	_	1 1	1	ı
	2	55.0	65.0	70.0	75.0	80.0	0.00	55.0	0.09	65.0	76.0	80.0	85.0	55.0	60.0	20.0	75.0	80.0	85.0	0.06	0.001	120.0	130.0	47.0	43.0	55.0	0.09	65.0	70.0	75.0	80.0	0.06	35.0	40.0	50.0	55.0	65.0	75.0	80.08
	STATION	73.0	73.0	73.0	73.0	73.0	73.0	77.0	77.0	77.0	77.0	77.0	77.0	80.0	80.0	0.00	0.00	80.0	0.0	0.0	0.0			2.0	83.0	200	3.0	3.0	3.0	3.0	200	300	7.0	7.0	7.0	7.0	0.7	7.0	87.0

(cont.)

Trachurus symmetricus

0000000 0 0 DEC. NOV 0000 0 0 0 0800000 0 9 000000 0 0 0000000 팅 SEP 00080000000 AUG. 1 00000000001 JULY 0000000 40000008000080000 00014000000848 JUNE 00000018 MAY 00000 20000 APR. 7101 7000 MAR 0 0000 0 0 0000000 0 0000000 0 0 0000000 FEB 00 000000 0 0 0000000 0 0 000 00 0 JAN. 110011111111111000000101010000001010100010010 STATION 

000 0 0 00

TABLE 4. (cont.)

	DEC.	11111	1 1 1 1 1 1 1	111111	111111111	1 1 1 1 1 1 1	DEC.	1 1 1 1
	NOV.	11111	111111	11111	111111111	111111	NOV.	1 1 1 1 1
	OCT.	0.0	0000001			000   000	OCT.	00000
	SEP.	1 1 1 1 1 1	111111	11111	0001111	2.4	SEP.	0.0
<u> </u>	AUG.	0.0000	0.400000	000000		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	AUG.	0.0 22.9 3.2
(cont.)	JULY	003330	00000	000000	78080080879 7808009791	000 000	JULY	00000
tricus	JUNE				000000000000000000000000000000000000000		JUNE	00000
s symme	MAY	42007 42000 9000 9000	5.5 3.1 18.6 17.0 0.0	00000000000000000000000000000000000000	0000370000	0000 000	Coryphaena	0.00
Trachurus symmetricus	APR.				000000000000000000000000000000000000000		COL APR.	2.5
T.	MAR.	1 1 1 1 1 1	0000001	0 0 0 0 0 0 0	00000000	000 000	MAR.	0.0
	FEB.		0000001	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		00000	FEB.	0.0
	JAN.		0000001	0.0000	00000000	0001000	JAN.	00000
	Z	65.0 75.0 880.0 90.0	00000000000000000000000000000000000000	70.0 75.0 80.0 35.0 40.0	50.00 440.00 450.00 60.00	75.0 55.0 35.0 37.0 60.0	Z	35.0 40.0 70.0 45.0
	STATION	1000.00	1033.0000000000000000000000000000000000	103.0 103.0 107.0 107.0	107.0 107.0 110.0 110.0 110.0	113.0 113.0 113.0 115.0 117.0	STATION	120.0 120.0 123.0 127.0

TABLE 4. (cont.)

	DEC.	11111111111111111111	DEC.	11111	DEC.	11111111
	NOV.	11111111111111111111	NOV.	11111	NOV.	11111111
	OCT.	000000	OCT.	000001	OCT.	00000000
	SEP.	08014w	SEP.	17.1 3.1 39.2 11.9	SEP.	0000000
	AUG.	2   0   0   0   0   0   0   0   0   0	AUG.	10.3 0.0 0.0 1.4	AUG.	2.9 26.9 21.8 12.3 1.5 1.1 1.1
(cont.)	JULY	000000	JULY	00000	JULY	00000000
burus	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 	JUNE	000000000
ena hip	MAY	Gerre	MAY	0.0 0.0 0.0 0.0 0.0 Haemu	MAY	000000000000000000000000000000000000000
Coryphaena hippurus	APR.	000000000000000000000000000000000000000	APR.	00000	APR.	00 00000
0	MAR.	000 00	MAR.	00000	MAR.	000000000
	FEB.	000 00	FEB.	00000	FEB.	000000000
	JAN.	000000000000000000000000000000000000000	JAN.	000000	JAN.	00000000
	STATION	1330.0 1333.0 1333.0 1333.0 1333.0 1337.0 1337.0 1347.0 1443.0 1447.0 1447.0 150.0	STATION	130.0 30.0 130.0 35.0 137.0 25.0 137.0 23.0 140.0 30.0	STATION	100.0 29.0 127.0 34.0 137.0 35.0 133.0 35.0 134.0 137.

TABLE 4. (cont.)

				На	Haemulidae (cont.)	ie (cont	t.)					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 30.0 140.0 35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.0	0.0	1 1	1.1
				Gi	Girella nigricans	igricar	SL					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
123.0 37.0 127.0 34.0	0.0	0.0	0.0	1 1	0.0	0.0	0.0	0.0	0.0	1.8	1 1	1.1
				Media	Medialuna californiensis	liforni	ensis					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
103.0 50.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	ı	0.0	ı	1
				Caul	Caulolatilus	s princeps	seps					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0		
		0.0	0.0	1	0.0	0.0	0.0	2.8	1 0	0.0	ı	ı
	2.3	0.0	0.0	1 1	0.0	000	000	0.0	0.0	0.0	1 1	1 1
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1:1	ı	0.0	1	ı
	0.0	0"0	0.0	0.0	0.0	0.0	4.0	0.0	1 0	0.0	1 1	1 1
137.0 30.0	0.0	0.0	0.00	0.00	000	0.0	000		0.0	000	1	1
	0.0	0.0	0.0	2.3	ט.ט	0.0 0.0 W:11:20	7.4	0.0	1	0.0	ı	I
					TIDE	יזממב						
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
ì	0.0	0.0	0.0	10	0.0	0.0	0.0	0.0	2.6	0.0	1 1	1 1
137.0 23.0	000	000	000	000	000	000	000	00.0	13.1	2.5	1 1	1 1
					Priacanthida	nthidae	41					
STATION	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
137.0 23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	)	ŧ

	DBC.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	NOV.	0 0 0000 0000
	OCT.	000001000000000000000000000000000000000
	SEP.	20.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
	AUG.	40000000000000000000000000000000000000
	JULY	000000000000000000000000000000000000000
idae	JUNE	
Sciaenidae	MAY	
	APR.	
	MAR.	
	FEB.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	JAN.	28.9 10.0
		28.28.29.20.20.20.20.20.20.20.20.20.20.20.20.20.
	STATION	60.0 60.0 60.0 60.0 60.0 80.0 80.0 80.0

TABLE 4. (cont.)

JAN. FEB. MAR. APR. MAY JUNE JULY AGG. SEP. OCT. NOV. DBG  Serranidae  JAN. FEB. MAR. APR. MAY JUNE JULY AGG. SEP. OCT. NOV. DBG  Serranidae  JAN. FEB. MAR. APR. DGG	JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV.  Serranidae  JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV.  JAN. FEB. MAR. APR. MAY JURY AUG. SEP. OCT. NOV.  JAN. FEB. MAR. APR. MAY JURY AUG. SEP. OCT. NOV.  JAN. FEB. MAY JULY AUG. SEP. OCT. NOV.  JAN.		. 00 v	FEB.	MAR.	APR.	MAV	TIME	TITE O	ATIC	SEP.	OCT.	NOV.	DEC.
Serranidae  Serran	Serranidae  JAN. FEB. MAR. APR. WYY JUNE JUNY AUG. SEP. OCT. NOV. DEC. OCT. OCT. OCT. OCT. OCT. OCT. OCT. OC	200000000000000000000000000000000000000	00 N				7077	CONTRA	1700					
Serranidae  JAN. FEB. MAR. APR. MAY  JUNE JULY AUG. SEP. OCT. NOV. DPC  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	Serranidae  Jan. FEB. HAR. APR. MAY  JUNE JULY AUG. SEP. OCT. NOV. DPC  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.		N.	1 1	1.1	0.0	1 1	1 1	1 1	5.4	1 1	1 1	'i i	1 1
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEP. OCT. NOV. DBG  0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	JAN. FEB. MAR. APR. JUNB JULY AUG. SEP. OCT. NOV. DBC  100.0		. Z				Serra	nidae				1		
000 000 000 000 000 000 000 000 000 00	000 000 000 000 000 000 000 000 000 00			FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
10   10   10   10   10   10   10   10	2.3	200000000000000000000000000000000000000		0		0.0	0.0	0.0	3.2	0.0		0.0	0.0	0.0
10   10   10   10   10   10   10   10	10   10   10   10   10   10   10   10	200000000000000000000000000000000000000		0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0
10   10   10   10   10   10   10   10	2.3	20000000000					0.0	0.0	0.0	5.9	1	0.0	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2000000000				0.0	0.0	0.0	0.0	2.9	1	0.0	ı	ł
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	20000000		0.0	0.0	0.0	0.0	0.0	7.9	0.0	ı	1	1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2000000		0 1	) ) ) 	0.0	0.0	0.0	800		ı	1	i	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2.3	200000		0	0						1	0.0	ŀ	ı
2.3	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	200000			000		000	000			1		ı	ı
2.3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1 1	000		1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0000	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 0	. 7		ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	000	0.	0.0	0.0	0.0	ı	0.0	7.6	0.0	0.0	0.0	ŧ	i
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.00	0.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	i	i
0.0         0.0 <td>10.0</td> <td></td> <td>0 "</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> <td>2.8</td> <td>0.0</td> <td>1</td> <td>0.0</td> <td>ı</td> <td>ı</td>	10.0		0 "	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1	0.0	ı	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		)	0.0	0.0	0	0.0	0.0	0.0	3,3	1	1	1	ı
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0				0.0	. [	0.0	0.0	0.0	3.0	5.1	7.0	ı	1
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0			000	000	ı				200	)		ł	ş
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0				000		000	000		, α α	ı		ı	8
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.00		0.0	0.0	1	0.0		0,0		1		ı	1
2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0			1 0		1	0.0	0.0	7 . 7			15 4		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0	e.	0.0		1	0.0	0.0	0.0			10.4	400	ì
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0	0.	0.0	-	1	0.0	0.0	0.0			0.0	1	I
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0		0.0		ı	0.0	0.0	2.8	0.0	ı	0.0	ı	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0	0.	0.0		1	0.0	0.0	0.0	2.8	ı	0.0	ı	1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$			1	ı	ı	0.0	0.0	0.0	6.2	1	ı	ı	ı
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		0	0.0	_	0.0	0.0	0.0	0.0	61.5	14.3		ı	ı
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		0	0.0		0.0	0.0	0.0	0.0	0.8	0.0		1	i
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$					0.0	0.0	0.0	0.0	1.1	0.0		ı	ı
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$					)		2.9	0.0	0.0	1		ı	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			0	_					1	17.1		ı	1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0									62 7			1	١
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			0.0	0			000	000	300	•		1	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0			0.0		0.0		0.0	2.0		1			1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			1	1	0.0	ı	I	0.0		I		ı	l
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	- 0.07		1	1	1	1	1	0.0		I	0.0	ı	1
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0		0.0		0.0			0.0		37.1	61.7	ı	ı
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			0		0.0			0.0	1	23.8	100.8	ı	ī
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0									0.0	0.0	1	20.0	1	ł
			٠							•		ייי	ı	ı
				0.0		0.0			0.0			100		1
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.				0.0		0.0			0.0	0		0		
0.0 8.7	0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0		1	1	0.0	ŀ	ı	1		ŧ	ı	ı	ı
	9.0 0.0 0.0	0		1	1	0.0	1	ŀ	1	8.7	1	ı	1	i

TABLE 4. (cont.)

	DEC.	1	ı	ı	ı	ı	ı	ı	1	ı	ı	ı	1	ı	ı	ı	ı		DEC.	1	ı	1 1			DEC.	ı	1 1			DEC.	1111111
	NOV.	1	ı	ı	ı	ı	1	ı	1	1	1	ı	1	1	ı	1	1		NOV.	1	1	1 1			NOV.	1	1 1			NOV.	1111111
	OCT.	1	1	ı	1	ı	ı	1	i	1	ı	ł	1	1	ı	ı	ł		OCT.	ı	ı	1 1			OCT.		0.0			OCT.	00000
	SEP.	1	ı	ł	ı	ı	ţ	1	1	ı	1	ı	1	ı	1	ł	1		SEP.	1	ı	ıı			SEP.	0.0	16.8			SEP.	23.8
	AUG.	90.1	22.8	4.2	4.5	28.1	1.6	2.5	15.8	1.9	1.3	4.7	1.7	1	1	1	ı		AUG.	1		9.6			AUG.	0.0	0.0			AUG.	2 2 2 8 6
	JULY	1	ı	ı	ı	1	1	ı	ı	1	ı	1	1	ı	ı	1	ı		JULY		ı	1 1			JULY	0.0	2.8	•		JOLY	00000011
(cont	JUNE	ı	ı	ı	1	ı	1	1	ı	1	ı	ı	ı	1	ŀ	ı	1	idae	JUNE		ı	1 1		idae	JUNE	5.5	0.0	•	spp.	JUNE	000000
Serranidae (cont.)	MAX	1	ı	ı	1	ı	ı	1	ı	1	1	1	1	1	1	ı	ı	Gempylidae	MAY	2.8	ı	1 1		Scombridae	MAY		0.0		AUXIS	MAY	000000
Ser	APR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1	i	1	1	1	1	ı	1		APR.		0.0	1 1			APR.	1 0	0.0	0		APR.	0000000
	MAR.		ı	1	ı	1	í	1	ł	1	1	ł	1	1	1	1	ı		MAR.		1	1 1			MAR.	1 4	0.0			MAR.	0000011
	FEB.		1	ı	1	1	ı	1	1	ŀ	ı	1	ı	1	ı	ı	1		FEB.		ı	1 1			FEB.	1 (	0.0	0		FEB.	00000
	JAN.	1 4								0	0		8 1	0	0		2.3		JAN.			0.0	0		JAN.	0.0	0.0	0.0		JAN.	0000000
	STATION	1															157.0 30.0		STATION	-	40.0	150.0 40.0	0.50		STATION	ľ	133.0 35.0	י		STATION	123.0 65.0 130.0 30.0 137.0 40.0 137.0 45.0 137.0 45.0

TABLE 4. (cont.)

	DEC.		ı	ŧ	ı	ı	ı	ı	ı	ı				- 1			DEC.	1	ı	ı		DEC.	1 1	ı	ı	1 1	ì	1	ļ		DEC.	00000	
	NOV.		ı	ı	ı	ı	1	ı	ı	1	1	1 1	1 1	1			NOV.	1	ı	ł		NOV.	1.1	ı	ı	1 1	ı	ı	ı		NOV.	00000	
	ocr.		ı	ı	ı	ı	i	ı	1	ı			1 1	1			OCT.	à	î	ı		OCT.	0.0	0.0	0.0		0.0	0.0	0.0		OCT.	000000	)
	SEP.		ı	ı	ı	ı	ı	ı	ı	ı			1 1	1			SEP.	ı	ı	ı		SEP.	0.0	0.0	1	7 7		0.0			SEP.	111111	
	AUG.		2.3	36.5	70.5	4.6	10.5	8.6	1.9	1	• • •	2.0	7.0	1 - 1			AUG.	1.5				AUG.	0.0	0.0	0.0	0.0	0.0	0.0	ı		AUG.	000000	)
( • :	JULY		ı	1	ı	ı	ŧ	1	ı	ı		ı	ı	I			JULY		ı	ı	Ŋ	JULY	0.0	0.0	0.0	000	2.8	0.0	5.1	SI	JULY	8833 897 800 100 100	9
cont	JUNE	1	ı	ı	ı	ı	ı	ı	1			ı	ı	l 1		Euthynnus spp	JOINE		ı	ı	iliensi	JUNE	5.0	0.0	10.7	0.0	0.0	0.0	0.0	aponic	JUNE	000000	•
Auxis spp. (cont.)	MAY		ı	ı	ı	ı	ı	ı	1		ı	i	1	1	ı	Euthyn	MAY		1	ı	Sarda chiliensi	MAY	0.0	1 0	0.0	0	0.0	0.0	0.0	Scomber japonicus	MAY	0000000	•
Au	APR.		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	I	1	1 1	ı		APR.	0.0	0.0	ı	S	APR.	0.0	2.5	0.0	0.0	0.0	0.0	0.0	Sc	APR.	1000000	•
	MAR.		ı	ı	\$	ı	ı	ŧ	1	-	)	l	I	1 1	ı		MAR.		ŀ	ı		MAR.	0.0	0.0	0.0	0.0	0.0	2.7	0.0		MAR.	0.0	
	FEB.		ı	ı	1	ı	1	1	ı		ŧ	ı	1	i	1		FEB.		1	ı		FEB.	0.0	0.0	0.0	0.0	0.0	0.0	0.0		FEB.	00000	
	JAN.									0		0	0	0.0	0		JAN.	0.0	0.0	0.0		JAN.	0.00				0 (		0		JAN.	000000	0
	ION		0	0 4	0	20	20		100	0 0	חי	0	0	16.0	7		ION	0 20.0	2	0		ION	0 33.0	9		90	3 (2)	20	3		ION	0 52.0 0 55.0 0 47.0 0 51.0 0 51.0	5
	STATION		143.0	43.	43.	43	47	47	47°	410	0/6	50.	50.	153.0	0/0		STATION	147.(	47.	50.		STATION	110.0	120.	130.	130.1	133.	137.	137.		STATION	888888888888888888888888888888888888888	°

	DEC.	0000000
	NOV.	0000000 00000000
	OCT.	000000000000000000000000000000000000000
	SEP.	1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 1 0 0 1 0 4 0 8 4 & & & & & & & & & & & & & & & & & &
	AUG.	0.0000000000000000000000000000000000000
(cont.)	JULY	000 W L C C C C C C C C C C C C C C C C C C
	JUNE	1000000000000000000000000000000000000
Scomber japonicus	MAY	000000000000000000000000000000000000000
Scombe	APR.	
	MAR.	
	FEB.	
	JAN.	000100000001000000101000000111001000000
	NC	282888900000000000000000000000000000000
	STATION	887 887 887 99300 9930 9930 9930 9930 9930 9930 9930 9930 9930 9930 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99300 99

TABLE 4. (cont.)

	DEC.	i	1	1	ı	ı		DEC.	1 1		DEC.	1	ı		DEC.	ı	1 1	1	1	1	ı	ı	ı	1 1	. 1	1 1	1	ı	: 1	ı	ı	I	I	1
	NOV.	ı	ı	1	1	ı		NOV.	1 1		NOV.	ı	1		NOV.	ı	1	1	1	ı	I	ł	I	1			ı	1	1 1	1	i	1	ł	
	ocr.	ı	ŀ	1	1	ı		OCT.	1.1		OCT.	1	1		OCT.	0.0	0.0	U 7U V - 4	2.9	0.0	9.6	2.8	0.0	000		0.0	8.01	10.0	200	0.0	1	ı	2.6	0 4
	SEP.	1	1	1	ı	ı		SEP.	1.1		SEP.	ı	ı		SEP.	t	i	1 1	1	1	1	1 0	0.0	1 1	(	0.0	1 1	1	1	1 1	2.4	2.8	3.1	
	AUG.	 0.0	0.0	0.0	0.0	0.0		AUG.	1.7		AUG.	1.5	T.9		AUG.	0.0	0,0	000	0.0	2.9	0.9	0.0	11.4	0.0	0.0	0.0	000		•	0.0	1	1	0.0	
(cont.)	JULY	 ı	1	ı	1	ı	.do	JULY	1 1	S	JULY	ı	l		JULY	2.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	•		ı	0.0	
	JUNE	 1	1	i	ı	1	orus spp	JUNE	1 1	albacares	JUNE	ı		Trichiuridae	JUNE	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	000	•	1	0.0	
r japonicus	MAY	 1	1	ı	1	1	Scomberomorus	MAY	1 1	Thunnus a	MAY	1	f	Trichi	MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000		ı	0.0	
Scomber	APR.	 0.0			9	1	SC	APR.	0.0	Tht	APR.	0.0	1		APR.	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		1	0.0	
	MAR.	 1	1	ı		1		MAR.			MAR.		ı		MAR.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	0.0	
	FEB.	 1	ı	1	1	1		FEB.			FEB.		1		FEB.	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0		ı	0.0	
	JAN.	 8.3	0 4		0.4	.0		JAN.	0.0		JAN.	0.0	0.0		JAN.	0.0	0.0	0.0		0.0	0.0	0.0	2.7	0.0	2.8	1 (	0.0	0.0	0.0	2.5	0 1	1	0.0	
		20.0	25.0	20.00	000	16.0			26.0			55.0	25.0			32.0	30.0	50.0	20.0	35.0	40.0	45.0	40.0	50.0	80.0	40.0	45.0	50.0	55.0	0.09	30.0	35.0	40.0	000
	STATION	 147.0	147.0	00.744	150.0	153.0		STATION	143.0		STATION	147.0	153.0		STATION	97.0	100.0	100.0	103.0	107.0	107.0	107.0	110.0	110.0	110.0	113.0	113.0	113.0	113.0	113.0	115.0	115.0	17.0	000

DEC.

	NOV.	11:11:11:11:11:11:11:11:11:11:11:11:11:	000001211
	OCT.	23.0 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.0000000000000000000000000000000000000
	SEP.	0.0 0.0 0.0 0.0 0.0 0.0 0.0	SEP.
	AUG.	0.00 2.33 3.33 3.33 3.33 3.33 3.33 1.00 1.00 1	AUG
nt.)	JOLY	00000000000000000000000000000000000000	3.1 11.4 0.0 12.1 12.1 5.5
lae (co	JUNE	argentea	COOO
Trichiuridae (cont.	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAX 0.0 0.0 0.0 0.0 0.0 27.0 21.4 0.0 0.0
Tri	APR.	0.0000	APR.
	MAR.	000000000000000000000000000000000000000	MARR.
	FEB.	100000000000000000000000000000000000000	FEB.
	JAN.	0000 0000000000000000000000000000000000	JAN.
	NO	0.000000000000000000000000000000000000	47.0 47.0 43.0 55.0 35.0 35.0 32.0 40.0 40.0
	STATION	11122222222222222222222222222222222222	STATION 82.0 83.0 83.0 83.0 83.0 87.0 90.0 90.0 90.0

0000000011

. 0000000 6

DEC.

TABLE 4. (cont.)

	DBC.	111111111	DEC.	
	NOV.	111111111	NOV.	
	ocr.	0000000011	ocr.	0 00 000 0 00 0 000 0 000 0 0
	SEP.	2200000	SEP.	
	AUG.	222.5 222.5 1.1.7	AUG.	
(cont.)	JULY	2.8 2.8 0.0 0.0 0.0 0.0 -	JULY	14.000000000000000000000000000000000000
	JUNE	0.0 0.0 1.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JUNE	
Sphyraena argentea	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	112.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00
Sphyrae	APR.	0.0 0.0 0.0 0.0 0.0	APR.	11.00000000000000000000000000000000000
	MAR.	0000000011	MAR.	1111111,111,11111111111111111111
	FEB.	000000011	FEB.	0.0.1
	JAN.	000000000	JAN.	0 00 000 0 00 0 000 0 00 0
	Z	130.00 1485.00 150.00 150.00 160.00 160.00 160.00	Z	885.0 87
	STATION	103.0 103.0 110.0 1113.0 1118.0 127.0 137.0 153.0	STATION	66000 66000 66000 66000 66000 66000 66000 66000 66000 77000 77000 77000 77000 77000 77000 77000 77000 77000 77000 77000 77000

TABLE 4. (cont.)

DEC. DEC. DEC. ı 0 000 NOV. 1010111101111011110100011 NOV 111111111 1321 0000 0.0 OCT. DC.T. 0008 SEP. SEP SEP 101111101 4.0000001 0.0 (cont.) JULY JULY JULY 00000000000400000 0000000 0 00004000000000000400400010 000000001 0 Peprilus simillimus Icichthys lockingtoni JUNE JUNE 04000000000000000 00000000 2.7 Nomeidae | WW4 | OVOOOOOOOOOOOOOOO 000000001 000000000 0 0.0 000000 00 0.0 APR. 0 000 0000000 MAR MAR 111111111111111111110100011 100000001 1 00000000 FIEB. FEB. 1 0 0 000 0 00 000 0000 000 JAN. 1010111101010001010010 000011000 0 52.0 00000000 885. 770. 7770. 77770. 77770. 77770. 70 33 55 65 65 76 76 STATION STATION STATION 100.0 110.0 113.0 113.0 113.0 117.0 127.0 130.0 80.0 77777.0 7777.0 7777.0 7777.0 7777.0 7777.0 7777.0 7777.0 7777.0 7

TABLE 4. (cont.)

	DEC.	0.0000000000000000000000000000000000000	DEC.	00 000000000000000000000000000000000000
	NOV.	0000000	NOV.	00 000 0 0
	OCT.	00000100001000004	OCT.	10000000000000000000000000000000000000
	SEP.	D 0 0 00 00	SEP.	0.000000000000000000000000000000000000
	AUG.	000000000000000000000000000000000000000	AUG.	000000000000000000000000000000000000000
(cont.)	JULY	2.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JULY	040 00000000000000000000000000000000000
imus	JUNE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	JUNE	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
77		a a	1	
°PH		i	1	
S Simi	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	000000000000000000000000000000000000000
eprilus simi	APR. MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	APR. MAY	
Peprilus simillimus		5.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		
Peprilus simi	. APR.	04 000000000000000000000000000000000000	APR.	000100000000000000000000000000000000000
Peprilus simi	MAR. APR.	000000000000000000000000000000000000000	MAR. APR.	
Peprilus simi	. FEB. MAR. APR.	000000000000000000000000000000000000000	FEB. MAR. APR.	

	DEC.	O. O.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
	NOV.	o.
	OCT.	000 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SEP.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	AUG.	0m0000000m10000mm0n100000000000mm0001
a	מתח	
Chiasmodontidae	JUNE	
hiasmod	MAY	000000000000000000000000000000000000000
0	APR.	000000000000000000000000000000000000000
	MAR.	### 1
	FEB.	000000 11000000000000000000000000000000
	JAN.	
	Z	0.000 0.0000 0.00000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.
	STATION	93770 94

TABLE 4. (cont.)

	DEC.			DEC.	ı	1	DEC.	0.0111		DBC.	1 1 1 1		DEC.	1 1 1
	NOV.			NOV.	ı		NOV.	0.0		NOV.	1 1 1 1		NOV.	1 1 1
	OCT.	0000001111111		OCT.	0.0		OCT.	00000		OCT.	0.0		OCT.	0.00
	SEP.	000000000000000000000000000000000000000		SEP.	ı		SEP.	0000	1	SEP.	2.2		SEP.	1 1 1
	AUG.	22.2 22.0 22.0 0.0 0.0 0.0 0.0 11.1 11.1		AUG.	0.0		AUG.	00000		AUG.	0.0 4.3 5.6 1.9		AUG.	0.0
ont.)	JULY	8220000		JULY	0.0	es	JULY	0.0000		JULY	0.0	.do	JULY	0.0
dae (cc	JUNE	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	opidae	JUNE	0.0	titorm	JUNE	00000	s spp.	JUNE	0.0	thys sp	JUNE	0.0
Chiasmodontidae (cont.)	MAY	00.00.00.00.00.00.00.00.00.00.00.00.00.	Uranoscopidae	MAY	0.0	Pleuronectitormes	MAY	0.00	Bothus	MAY	0.0	Citharichthys spp	MAY	000
Chias	APR.	000 00 0		APR.	2.8	PI	APR.	0000		APR.	0.0	Ci	APR.	0.0
	MAR.	00 0 10 1 1 1 1 1 1 1 1		MAR.	0.0		MAR.	0.00		MAR.	0.0		MAR.	111
	FEB.	00011011111111		FEB.	0.0		FEB.	0000		FEB.	0.0		FEB.	0.0
	JAN.	220009 00000000000000000000000000000000		JAN.	0.0		JAN.	404.04 0.04.04 0.09		JAN.	0.00		JAN.	2.8
	STATION	133.0 133.0 133.0 133.0 134.0 137.0 137.0 137.0 150.0 150.0 150.0 153.0 153.0 153.0 153.0		STATION	137.0 45.0		STATION	80.0 52.0 80.0 55.0 119.0 33.0 120.0 35.0 127.0 34.0		STATION	137.0 23.0 147.0 25.0 150.0 25.0 153.0 25.0		STATION	63.0 70.0 73.0 51.0 77.0 50.0

	DEC.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	NOV.	0 0 0000 0 00
	OCT.	000       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SEP.	0.000000000000000000000000000000000000
	AUG.	78096400000000000000000000000000000000000
cont.)	JULY	
spp. (	JUNE	2
Citharichthys spp. (cont.)	MAY	000 000
Cithari	APR.	000 00000000000000000000000000000000000
	MAR.	
	FEB.	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	JAN.	NOO         NOO
	N	0.000000000000000000000000000000000000
	STATION	880000 880000 880000 880000 880000 881330000 1111111111

TABLE 4. (cont.)

1	DEC.	111111111111111111	DEC.	1111111111111111111111
	NOV.	1,11111111111111111	NOV.	1111111111111111111111
	OCT.	000000000000000000000000000000000000000	OCT.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	SEP.	15.4 0.0 0.0 10.2 10.2 1.0 2.8 1.0 1.0	SEP.	885.7 17.6 17.6 17.6 10.0 10.0 10.0 10.0 10.0
	AUG.	3.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	AUG.	10000000000000000000000000000000000000
(cont.)	JULY	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	JULY	0000 0000 0000 0000 0000 0000 0000 0000 0000
	JUNE	111.8 25.7 25.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JUNE	000 000 000 000 000 000 000 000 000 00
Citharichthys spp.	MAY		MAY	000000000000000000000000000000000000000
Cithari	APR.	Citha	APR.	000 000 000 000 000 000 000 000 000 00
	MAR.	000000000000000000000000000000000000000	MAR.	14 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.
	FEB.	00000000 000 00 0	FEB.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	JAN.	00     400     1000   000000	JAN.	2.7 2.7 0.00 0.00 0.00 0.00 0.00 0.00 0.
		784		229 229 229 229 229 229 229 229 229 229
	STATION	112233 112233 112233 112277 112377 113333 113333 113333 113333 113333 113333 113333 113333 113333 113333 113333 113333 113333	STATION	1000 1000 1000 1003 1003 1003 1003 1003

tharichthys fragilis (cont.)

	DEC.		1	ı	ı	1 1	1	1	ı	1	1	ı	1	1 1	1	1	ı	1 1	ı	1 1	1	1		DEC.	ı		DEC.	ı	1 1	1	1	ı	ı
	NOV	1	1	ı	1	1 1	1	ı	ı	1	1	I	ı	1 1	1	ı	I	1 1	1	1 1	i	I		NOV	1		NOV	١	1 1	1 #	1	1	t
	OCT.	5.4	0.0	0.0	0.0	000		0.0	2.7	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	)   	1		OCT.	1		OCT.	1.8	0.0	0 · C	1.9	2.2	7.6
	0																							0			0						
	SEP.	58.2	0	1	t	1 1	14.7	0.0	0.0	0.0	1	1	0.0	٥ ١	1	ı	0.0	0 1	0.0	0.0	0 1	ı		SEP.			SEP.	١	1 1	1 1	1	ł	1
	AUG.	0.0	0.0	0.0	0.0	× ×		0.0	0.0	1 9		2.9	9.0	0.0	0.0	0.0	10	7.7	0.0	0.0	8.5			AUG.			AUG.		1 1	1 1	1	1	1
ıt.)	AI			_	•		'	J	_						, _	_		10	, _	_	w	-		AI			AI	ı'	' '	'	'	'	1
(cont.	JULY	18.8	0.0	2.8	0.0			0.0	0.0	0.0	0.0	0.0	2.5	000	0.0	0.0	0.0		0.0	0.0	0.1	ı	hrys	JULY		gnp	JULY	,	1 1	1 1	0.0	0.0	0.0
lis	JUNE	2.5	00	0.	0.	٥٥		. 4	۲.	۰.	; o	0	0.	٥٠	4.	0.	0.0		0.	8.5			atop	JUNE		ordi	JUNE						
ragi	- E	40	0	0	0	00	1	4	65	0 7	0	0	0	٥,	53	3	00	00	0	Φ (	۱ د	1	ld sh	5		s shi	B				1	I	I
Citharichthys fragilis	MAY	10	0.0	0.0	0.0	000		5.0	0.0	0.0	000	0.0	3.4	000	0.0	0.0	0.0		0 1	0.0	0.1	1	Citharichthys platophrys	MAY		Citharichthys sordidus	MAY		1 1	1 1	0.0	0.0	0.0
icht			n C	0	2	00								m c	0	0	00	00	4	00	0	0	hari			thar					0	0	0
thai	APR	150.1	0	0	11.	•		1	ı	L	1 1	t	1 '	4 0	0	0	0	ċ		0	0	0.	Cit	APR	1	Ci	APR		1	1	0.	0	0
บี	MAR.	9.7	0.0	0.0	0.0	0.0	) ) )	5.4	0.0	0.0	0.0		0.0	2.0	0.0	0.0	0.0	20.0	0.0	0.0	0.1	ı		MAR.			MAR.		1		1	ı	ı
	~				_			_	_		_		_				_				_			-			-						
	FEB.	2.1	13.3	0.0	0.0	0.0		0.0	2.9	2.5		1	0.0	0.0	0.0	0.0	2.0		0.0	11.0	n 1	ı		FEB.			FEB.	i	1	i i	ı	ı	I
	JAN.	0.0	000	0.0	0.0	0.0	0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0		JAN.	3.0		JAN.			1 1	0.0	0.0	0.0
	J.				۰		1	0	J	_		J				J	J (	ی ر		J (		J		37			J		,		J	0	
		35.0	45.0	50.0	55.0	60.0	34.0	37.0	42.0	45.0	55.0	70.0	34.0	30.0	55.0	0.09	25.0	35.0	36.0	23.0	26.0	45.0			10.0			0.06	50.0	0000	0.09	70.0	0.08
	STATION	1																						STATION	57.0		STATION	!	50.0				
	STA	120	120	120	120	120	121	123	123	123	123	123	127	130	130	130	133	133	134	137	143.0	147		STA	157		STA	43	50	U 7	9	09	9

	DEC.	1 1	1	ı	ı	1 1	- 1	ı	ı	0.0	1 0	0.0	0.0	1	3.2	00	0.0	0.0	0.0	0.0	ll	1	ı	1 1	1 1	1	1 1		DEC.		1	1 1	i	ı	1 1	
	NOV.	1 1		ı	1 -	1 1	1	1	1	0.0	1 0	0.0	0.0	1	0.0	0.0	000	0.0	0.0	0.0	1 1	-	ı	1 1	1 1	ı	1 1		NOV.		ı	1	1	ı	1 1	
	OCT.	0.0	6.7	2.8	0.0	1 0		000	2.5	0.0	0.0	0.0	0.0		0.0	000	0.0	0.0	0.0	0.0	0	0.0	0.0	0,0		0.0	0.0		OCT.	2.9	4.0	4°C	4.3	5.6	9.2	
	SEP.	1 1	ı	ı	ı	1		í	ı	ı	1	1 1	1	ı	1	Į į	1 1	1		0.0		ı	ı			0.0	0.0		SEP.		ı	1 1	1	ı	1 1	
(	AUG.	1 1	ı	ı	ı	1 1	- 1	ı	ı	0.0		0.0	2.5	3.4	0.0	0.0		0.0	0.0	0.0	, r o	. w	0.0	0.0	0.0	0.0	0.0		AUG.		ı	1 1	ı	ı	1-1	
(cont.	JULY	0.0	0.0	0.0	0.0	0.0		0.0	6.5	3.4	0.0	0.0	0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	000	0.0	8.3	0.0	0.0	0.0	0.0	seus	JULY		1 0	0.0	0.0	0.0	3.4	
rdidus	JUNE	1.1	1	1	ı	1	1 1	1	i	0.0	2.9	0.0	c			0.0											5.5	st	JUNE		ı	1 (	I	ı	l I	
Citharichthys sordidus	MAY	0.0	0.0	0.0	₩. 4.	200	0.0	000	0.0	)	0.0	2.8	0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Citharichthys	MAY		10	0.0	0.0	0.0	0.0	
harich	APR.	3.0	) ) )	0.0	0.0	10	0.0	0.0	0.0	0.0	0.0	0.0	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	Cithar	APR.		1 1	0.0	0.0	1	0.0	
Cit	MAR.	1 1	1	1	ı	1	1 (		ı	ı	1	ı	1 1	1	ı	0.0	4.0	0.0		0.0	ا ا	0.0	0.0	0.0	0.0	00.	0.0		MAR.		ı		1	ı	1 1	
	FEB.		ı	ı	ı	1	1 1		0.0	0.0		0.0	4.0		0.0	2.3	۲۰۰	0.0	2.5	0.0	10	0.0	0.0	0.0	3.0	3.0	0.0		FEB.		ı	1	1	1	1 1	
	JAN.	0.0		3,3	0.0	1 0	0.0	2.7	0.0	0.0	ı	8,3	1 0		2.9	0.0	2.7	. O.	0.0	2.9	10	0.0	0.0	0.0	0.0	0.0	0.0		JAN.		1	0.0	2.8	0.0	0.0	
	STATION																										113.0 35.0		STATION	1					70.0 70.0 70.0 80.0	

TABLE 4. (cont.)

	DEC.	1 1	ł	1 1	ı	0.0	3.0	0.0	I		0.0	000		0.0	ı	1	1 0	200	0.0	000	0.0	1	ı	ı	1 1		0.0				0.0			ı	1 0		0.0	0.0	)	
	NOV.	1 1	I	: 1		2.3	0.0	0.0	í	10	0.0	7.70		0.0	ı	ı	1 0	0.0	0.0		0.0	ı	I	ı	1 1	2 5	0.0	0.0	1 (	0.0	0	0.0	0.0	ı	1 9		2.5	0.0	) ) )	
	OCT.	0.0	1 1	4 c			2.0	0.0	1 4	0.0	1 0	0.0		0.0	1	0.0	1 0	0.0	0.0		0.0	1	1.5	1 0	200		2.3	0.0	2.9	4.0		0.0	0.0	ı	1 0	2.0	0.0	2.0	) ) )	
	SEP.	1 1	ı	1 1		1	1	t	ı	1	ı	1 1	1 1	ı	ı	ı	ı	1	1	1 1	1	ı	ı	ı	1	1 1	ı	1	1 1	0.0	000	0.0	0.0	2.9	10	0.0	0.0	0.0	0.0	
(	AUG.	1 1	1	1 1	0	) ) )	6.4	2.5	1 1	0.0	1 (	2.0	1.01	5.0						•				1			0.0					0 4						0.0		
(cont.	JULY	0.0			0			8.9			1 (	3.2	0,4	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	3.0	0.0	0.0		0.0	0.0	3.2	1 6	4.0	0.0	2.5	0.0	
gmaeus	JUNE	1 1	1	t	0			0.0			1.0					-	-	-				Ξ.		-	-		0.0		-									0.0		
nds sti	MAY	0.0					1	2.8	0.0	0.0	1 4	0.0	000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0				2.7		
Citharichthys stigmaeus	APR.	0.0					0.0	2.9		2.6	1	0.0	000														000	0 0						ı				2.8		
Cith	MAR.		1	1	ı	1 1	ı	1	1	1	1	ŧ	1 1	1	1	ı	1	1 1	5.4		: 1	1	1	1	1		0.0			0.0	10	2.7	0.0	0.0	10	0.0	0.0	0.0	٠ ١	
	FEB.	3.6		0.0					1			6.2	0.0	0.0		3.1				. c			0.0	1	0"0	2.6	0.0	0.0	0.0	0.0	0.0		0.0	ı	1 0	0.0	0.0	0.0	0 1	
	JAN.	0.0	1	0.0		0.0	0.0	0	ı	4.8		0.0		0.0	0	0.0	1	0.0	0.0	0.0	000		0.0	1			3.5		1	2.9	0.0	0.0	) •	1	2.8	0	0.0	0.0	0.1	
		51.0	5.0	0.0	0.0	0.0	0.1	0.0	5.0	2.0	3.0	5.0	0.0		2.0	0.0	5.0	7.0	3.0	0.1	0.0	5.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	8.0	2.0		0.0	5.0	7.0	0.8	2.0	0.0	2.0	
	STATION	73.0 5																																						

TABLE 4. (cont.)

	DEC.		DEC.	0 0000
	NOV.		NOV.	0.0000000000000000000000000000000000000
	OCT.	000000000000000000000000000000000000000	OCT.	000100000000000000000000000000000000000
	SEP.	00 0000	SEP.	0.00 0.00
•	AUG.	00000000000000000000000000000000000000	AUG.	000000000000000000000000000000000000000
(cont	JULY	0.0 3.7 0.0 0.0 0.0 27.5 2.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	JULY	000000000000000000000000000000000000000
igmaeus	JUNE	5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	000000000000000000000000000000000000000
hys st.	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	000000000000000000000000000000000000000
Citharichthys sti	APR.		APR.	0,0000000000000000000000000000000000000
Cit	MAR.	000000000000000000000000000000000000000	MAR.	110000000000000000000000000000000000000
	FEB.		FEB.	0 6000000000000000000000000000000000000
	JAN.	0000000 0000000000000000000000000000000	JAN.	0000 0000000000000000000000000000000000
	Z	00000000000000000000000000000000000000	Z	20000000000000000000000000000000000000
	STATION	97.0 97.0 97.0 1000.0 1	STATION	77.0 860.0 90.0 90.0 90.0 90.0 100.0 100.0 100.0 110.0

	DEC.	
	NOV.	
	OCT.	0 0 0 0 0 1 1 2 1 0 0 0 0 0 0 0 0 0 0 0
	SEP.	22.6 22.6 22.6 113.8 113
nt.)	AUG.	00000   1 0000000000   1 000000000000   1 00000000
Citharichthys xanthostigma (cont.)	JULY	1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0
hostig	JUNE	000000000000000000000000000000000000000
iys xant	MAY	0000 00000000 1111110000000000000000000
arichth	APR.	0.000 0.000
Cith	MAR.	0.000
	FEB.	0.0000000000000000000000000000000000000
	JAN.	00 00 0000000 00 0000000000000000000000
	ON	E W 44 W W 42 W 42 W 43 W 43 W 44 W 43 W 44 W 44
	STATION	11133 100000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	11111111	DEC.	111111111111111	DEC.	00
	NOV.	11111111	NOV.	111111111111111	NOV.	00
	OCT.	000001111	OCT.	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	OCT.	000000000000000000000000000000000000000
	SEP.	0.00	SEP.	0.0000000000000000000000000000000000000	SEP.	0.000001
ıt.)	AUG.	1.1 0.0 0.0 0.0 3.1 1.7	AUG.	3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 1.1	AUG.	0.0000000000000000000000000000000000000
na (cont.)	מתר	00000	JULY	10.0 5.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JULY	0.00 0.00 0.00 0.00 0.00 0.00
hostign	JUNE	0.0 0.0 0.0 0.0 	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	000000000000000000000000000000000000000
Citharichthys xanthostigma	MAY	0.0 0.0 0.0   Etropus	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	48000000111
arichth	APR.	0.0047000000000000000000000000000000000	APR.	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	APR.	0.0000000000000000000000000000000000000
Cith	MAR.	9.0000	MAR.	0000000100000011	MAR.	000000000
	FEB.	13.8800.0000.000000000000000000000000000	FEB.	0000000100000011	FEB.	0000000000
	JAN.	000000000	JAN.	0.0000000000000000000000000000000000000	JAN.	0000000000
	N.	0.000000000000000000000000000000000000	Z	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	N	223.00000000000000000000000000000000000
	STATION	133.0 134.0 137.0 137.0 140.0 143.0	STATION	1208 1208 1208 1208 1209 1309 1309 1309 1309 1309 1309 1309 13	STATION	93.0 100.0 103.0 113.0 117.0 117.0 119.0

TABLE 4. (cont.)

	DEC.		DEC.	0000000001111111111111111111111
	NOV.	111111111111	NOV.	000000000000000000000000000000000000000
	OCT.	0.00 0.00 0.00 0.00 0.00 1	OCT.	000000000000000000000000000000000000000
	SEP.	0.1120120040	SEP.	111110001111110000000000000000000000000
•	AUG.	000000000000000000000000000000000000000	AUG.	
(cont.	JULY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JULY	00000000000000000000000000000000000000
stomata	JUNE	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JUNE	60000000000000000000000000000000000000
	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	000000000000000000000000000000000000000
Hippoglossina	APR.	0.0 0.0 0.0 0.0 0.0 0.0 5.5 Parali	APR.	00000000100000000000000000000000000000
H	MAR.	00000 0000000	MAR.	1   0000   000000
	FEB.	00000 0000000	FEB.	08000000000000000000000000000000000000
	JAN.	000000000000000000000000000000000000000	JAN.	00000000000000000000000000000000000000
	Z	33 30 30 30 30 30 30 30 30 30 30 30 30 3	N	0.000000000000000000000000000000000000
	STATION	120.0 120.0 123.0 123.0 123.0 127.0 133.0 133.0	STATION	883.00 883.00 883.00 990.00 990.00 1100.00 1110.00 1120.00 1120.00 1120.00 1120.00 1120.00 1120.00

TABLE 4. (cont.)

	DEC.	1111111		DEC.	00.00		DEC.	111111		DEC.	
	NOV.	111111		NOV.	000111		NOV.	111111		NOV.	1111111111
	OCT.	0.0		OCT.	00000		OCT.	0000001		OCT.	00 0000000
	SEP.	4 4.		SEP.	2.6 0.0 0.0		SEP.	111111		SEP.	1111111111
	AUG.	0.0 1.3 3.0 2.2 2.2 11.9		AUG.	0.0000		AUG.	0.0		AUG.	1111111111
	JULY	0.	is	JULY	00000	irus	JULY	0.00000	S	JULY	0000000000
ovale	JUNE	0.0111111	liolepis	JUNE	00000	us zacl	JUNE	2.9	a exilis	JUNE	1111111111
Syacium ovale	MAY	0.0	Xystreurys	MAY	00000	Glyptocephalus zachirus	MAY	0.0000000000000000000000000000000000000	Lyopsetta	MAY	221 286 200 000 200 200 200 200 200 200 200 20
	APR.	00000111	XyS	APR.	0.0	Glypt	APR.	900000000000000000000000000000000000000	Li	APR.	1 000000000000000000000000000000000000
	MAR.	0.0		MAR.	0.00		MAR.	11111	1	MAR.	1 1 1 1 1 1 1 1 1 1 1 1
	FEB.	0.0		FEB.	0.0000000000000000000000000000000000000		FEB.	111111		FEB.	1111111111
	JAN.	00000000		JAN.	0.0000		JAN.	000000		JAN.	00 0000000
	N	23.0 26.0 20.0 25.0 19.0 25.0		Z	55.0 51.0 37.0 34.0		Z	52.0 90.0 52.0 55.0 75.0		N	20000000000000000000000000000000000000
	STATION	137.0 143.0 147.0 150.0 153.0		STATION	80.0 83.0 123.0 127.0 130.0		STATION	60.0 63.0 63.0 70.0 70.0		STATION	600000000000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	11100101100000000000011111	DEC.	0.0
	NOV.	00 0 0000000000000000000000000000000000	NOV.	0.0
	OCT.	0 00000 0000000000000000000000000000000	OCT.	00 00 0 0000
	SEP.	0000000 00	SEP.	11111111111111
	AUG.	00 00 000000000000000000000000000000000	AUG.	111111111111
(cont.)	JULY	S 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	JULY	0080000000000000
	JUNE		JUNE	0 30
Lyopsetta exilis	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	00000 14000010
Lyopse	APR.	Micr	APR.	90 0m 0 80000
	MAR.	000000000000000000000000000000000000000	MAR.	111111111111
	FEB.	V4000000000000000000000000000000000000	FEB.	00.0
	JAN.	0 00000 00000 00000 000000	JAN.	00 00 0 00 00 00 00 00 00 00 00 00 00 0
	STATION	73.0 773.0 773.0 777.0 80.	STATION	60.0 90.0 67.0 50.0 70.0 65.0 70.0 75.0 70.0 85.0 73.0 85.0 73.0 85.0 73.0 85.0 73.0 85.0

TABLE 4. (cont.)

	DEC.	0.0111		DEC.	111111100000011111111	DEC.	0 0 1 1 1 1 1
	NOV.	1 1 1 0 1 1 1		NOV.	000000	NOV.	0.111111
	OCT.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		OCT.	00 000000000000000000000000000000000000	OCT.	000000
	SEP.	1111111		SEP.	00 00 00 00 00 00 00 00 00 00 00 00 00	SEP.	0.0000
•	AUG.	0000		AUG.	1111110000000000000	AUG.	000000000000000000000000000000000000000
(cont.	JULY	0002000	IS	JULY	PP	JULY	000000
ificus	JUNE		vetulus	JUNE	hthys s	JUNE	0.00
mus pac	MAY	m00000m	Parophrys	MAY	4 6.3	MAY	0.00
Microstomus pacificus	APR.	0 00000	Pa	APR.	5.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	APR.	0000000
M	MAR.	111111		MAR.	11111111887	MAR.	0.00
	FEB.	0.00	1	FEB.	1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0	FEB.	000000
	JAN.	0.0		JAN.	47.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	JAN.	0000000
	STATION	77.0 80.0 77.0 85.0 77.0 85.0 83.0 65.0 83.0 70.0		STATION	60.0 67.0 67.0 67.0 67.0 73.0 73.0 73.0 83.0 83.0 83.0 83.0 83.0 83.0 93.0 93.0 93.0 93.0 93.0 93.0 93.0 9	STATION	87.0 35.0 117.0 30.0 118.0 39.0 120.0 40.0 127.0 34.0 130.0 130.0 130.0 130.0 130.0 130.0

TABLE 4. (cont.)

	DEC.	0.00		DEC.	1111		DBC.	0.0		DEC.	0000111		DEC.	0.0		DEC.	0.0
	NOV.	0.0		NOV.	1111		NOV.	0.0		NOV.	000		NOV.	000		NOV.	2.6
	OCT.	0000		OCT.	0000		OCT.	0.0		OCT.	000000		OCT.	000		OCT.	0.0
	SEP.	0.0		SEP.	1111		SEP.	0.0		SEP.	0.0110		SEP.	1 1 1		SEP.	1.1
	AUG.	0000		AUG.	1 # 1 1		AUG.	2.9		AUG.	0.0000000000000000000000000000000000000		AUG.	0.0		AUG.	0.0
snso	JULY	0.00	rrens	JULY	0000	teri	JULY	0.0	calis	JULY	0.0000	tictus	JULY	0000		JULY	2.8
ys coer	JUNE	23.300	ys decu.	JUNE	1   1	hys rit	JUNE	0.0	s verti	JUNE	000000	nelanos	JUNE	0.0	us spp.	JUNE	0.0
Pleuronichthys coenosus	MAY	0000	Pleuronichthys decurrens	MAY	0.0 3.9 4.8	Pleuronichthys ritteri	MAY	0.0	Pleuronichthys verticalis	MAY	00000	Psettichthys melanostictus	MAY	0.0	Symphurus spp	MAY	0.0
Pleur	APR.	0.00	Pleurc	APR.	m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Pleur	APR.	0.0	Pleuro	APR.	0000000	Psettic	APR.	3.0		APR.	0.0
	MAR.	0.0		MAR.	1111		MAR.	0.0		MAR.	00000		MAR.	0.0		MAR.	1 1
	FEB.	0.00		FEB.	1 1 1 1		FEB.	0.0		FEB.	000000		FEB.	0.0		FEB.	0.0
	JAN.	0.0		JAN.	0000		JAN.	0.0		JAN.	800000		JAN.	0000		JAN.	0.0
	Z	43.0 55.0 70.0 50.0		2	90.0 90.0 80.0 85.0		Z	28.0		Z	255 255 300 300 300 300 300 300		1 2	60.0 40.0 50.0		Z	50.0
	STATION	83.0 87.0 87.0 90.0		STATION	60.0 63.0 70.0 70.0		STATION	93.0		STATION	77.0 90.0 93.0 100.0 107.0		STATION	70.0 87.0 87.0		STATION	77.0

	DEC.	000 0 0000
	NOV.	000 0 0000
	OCT.	0.0004420202000000000000000000000000000
	SEP.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	AUG.	000000000000000000000000000000000000000
nt.)	JULY	M44000000W 0 00 00000 00000 1 1 0000000000
spp. (cont.)	JUNE	
Symphurus s	MAY	
Symp	APR.	000000000000000000000000000000000000000
	MAR.	0 0000000000000000000000000000000000000
	FEB.	00000000 000000 00000 0000 000 0000 0000
	JAN.	
	N	01000000000000000000000000000000000000
	STATION	88888890 100000000000000000000000000000000000

TABLE 4. (cont.)

	DEC.	111111111111	DEC.	0.00 0.
	NOV.	111111111111	NOV.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	OCT.	22.00 177.99 0.00 0.01	OCT.	0 0000000000000000000000000000000000000
	SEP.	17.4	SEP.	
	AUG.	38.52 38.52 38.53 38.53 38.53	AUG.	00.000000000000000000000000000000000000
nt.)	JULY	0.0 0.0 0.0 0.0 0.0 1 1 1 1 1 1	JULY	001100011000100000000000000000000000000
pp. (co	JUNE	0.0 0.0 0.0 0.0 0.0 1	JUNE	14.7
Symphurus spp. (cont.)	MAY	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 - 0.0 0.0 0.0 - 0.0 0.0 0.0 0.0 - 0.0 0.0 0.0 - 0.0 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 - 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MAY	110010700000000000000000000000000000000
Symp	APR.	0.0 0.0 0.0 0.0 0.0 0.0 0.0	APR.	0.0000000000000000000000000000000000000
	MAR.	0000000111111	MAR.	0.0
	FEB.	000000011111	FEB.	100 100 100 100 100 100 100 100 100 100
	JAN.	000000000000	JAN.	1100,000,000,000,001,11,000,100
	N	23000000000000000000000000000000000000	Z	422 425 426 427 427 427 427 427 427 427 427
	STATION	1334.0 1334.0 1337.0 1337.0 1337.0 1400.0 1433.0 1533.0	STATION	43.00 663.00 663.00 770.00 773.00 773.00 777.00 777.00 777.00 777.00 777.00 777.00 880.00 880.00 882.00

Disintegrated fish larva (cont.)

	DEC.	
	NOV.	0000 00000 0000000000000000000000000000
1	OCT.	0000 0 00000000 000000 00 000000 0 00000
	SEP.	111111111111111111111111111111111111111
( • .	AUG.	
d (colle	JULY	
TISH TALVA	JUNE	
area II	MAY	000000000000000000000000000000000000000
nisincedi	APR.	
DIS	MAR.	
	FEB.	22 22 22 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24
	JAN.	
	Z	######################################
	STATION	######################################

TABLE 4. (cont.)

Disintegrated fish larva (cont.)

JEC. NOV FEB 00 0000 0 0000000 000000 0 000 000 STATION 

NOV. OCT 000 58000000 6000 005 11110001111110000000111111000011110001 SEP Disintegrated fish larva (cont.) JULY 0000 FEB JAN. STATION 1113.00 11113.00 11113.00 11117.00 11117.00 111777.00 11177.00 11177.00 11177.00 11177.00 11177.00 11177.00 111777.00 11177.00 11177.00 11177.00 11177.00 11177.00 11177.00 111777.00 11177.00 11177.00 11177.00 11177.00 11177.00 11177.00 111777.00 11177.00

TABLE 4. (cont.)

Disintegrated fish larva (cont.)

NOV. 00000000000000408 SEP 1111/201111111004 0040 JULY 0000000000000000000 000001 000 00006 000000 000 800000 000000 000000 FEB JAN STATION 

TABLE 4. (cont.)

	DEC.	ı	1	ı	1	)			DBC.	1	ı	i	1	1 1		1	_	0.0	ı	1 (	0.0	1	ı	0.0	0.0	0.0	0		0.0	0.0	0.0	0.0	0.0	0	0.0	)	0.0	1 0	)   	ı	
	NOV.	ı		,		1 1			NOV.	ı	ı	ı	ı	1	1 1	1	0.0	0.0	ı	1 (	0.0		ı	0.0	0.0	0.0	1 0	000	0.0	0.0	1 0	0.0	1	0		0 1	0.0	1	1 8	1	
	OCT.	ı		1		1 1			OCT.	1	0.0	0.0	0.0	200	0.0	0.0	0 1	0.0	ı	0.0	0.0	1	1	0.0	0.0	0.0	0.0		0.0	4.5	0.0	0.0	1 1		, o	) •	2.8	2	1 1	5.2	
	SEP.	ı		1 1		1 1	ı		SEP.	1	1	1	1	1	1 1		1	ı	1	1	ı	1 1	1	1	ł	ı	ı	l (	1	0.0	0.0	0.0	0.0					2.6			
( • :	AUG.	ı		l	ı	1 1	ì		AUG.	1	ł	ı	ı	ı	1	0		0.0	1		0.0			0.0	0.0	3.1	0.0		0.0	0.0	0.0	0.0	ı		0.0	0.0	0.0	0.0	3.2	0.0	
a (cont	JULY			ı	ł	1 1	ı	larva	JULY	5.7	0.0	0.0	0.0	0.0	0.0	•	• 1	0.0	3.2	0.0	0.0	000	0 1	8.2	0.0	0.0	0.0		200	2.9	0.0	0.0	I		0.0	2.7	0.0	0.0	0.0	2.1	
sh larv	JUNE			i	ı	ı	ı	d fish larva	JUNE		ı	1	I	ı	ı	0	٥	0.0	0.0	10.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	2.9	I	1 4	0.0	0.0	0.0	0.0	0.0	0.0	
ated fi	MAY		)	ı	i	i	ı	Unidentified	MAY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	٥٠١	2.8	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200	2.8	0.0	0	0.0	0.0	0.0	2.4	
Disintegrated fish larva (cont.)	APR.		ı	1	ı	ı	ı	Unide	APR.		5.4	2.8	0.0	1 0	0.0	2.0	0 0	0.0	) • •	0.0	0.0	0.0	0.0	0	0 0				0 1		2.9		í	1	0.0	0.0	0.0	0.0	0.0	1 1	
Dis	MAR.		i	ı	ı	ı	ı		MAR.		+	1	ı	ı	I	ł	1 1	1 1	1	1	ı	Ľ	ł I	1	0.0	1	1 (	0.0	000	0.0	)	0.0	1		0.0	32.1	0.0		0.0	0.0	
	FEB.		1	1	ı	i	ı		FEB.		ı	ı	ı	ŀ	0.0		2.0	7.0	•	1	12.4	t	ŧ	0	2.3	0.0	0.0	0.0	9.0		0.0	1.5	ı	1	0.0	0.0	0.0	1	0.0	0.0	
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Summary of pooled occurrences of all larval fish taxa taken on CalCOFI surveys from 1951 to 1960. Taxa are listed in the same order as Table 4. TABLE 5.

1960	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1959	33.3 31.1 32.1 33.1 33.1 33.1 33.2 33.2
1958	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1957	1
1956	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1955	2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 4 4 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
1954	2 3 3 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1953	2 2 2 8 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6
1952	2 6 9 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
1951	333 34 4 02 5 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Name	Albula vulpes Anguilliformes Engraulidae Engraulidae Engraulidae Engraulidae Engraulidae Engraulidae Engraulidae Engraulis mordax Alepocephalidae Alepocephalidae Anterostoma microstoma Nansenia candida Nansenia candida Nansenia candida Anterostoma microstoma Nansenia candida Dathylagus spp. Bathylagus spp. Bathylagus spilbius Sathylagus spilbius Sathylagus milleri Bathylagus spilbius Sathylagus milleri Bathylagus schnidii Ceuroglossus schnidii Leuroglossus schnidii Leuroglossus schnidia Leuroglossus schnidia Stonii formes Cyclothone Spp. Diplophos taenia Stonias atriventer Aristostomias scintillans Bathophilus spp. Stonias atriventer Aristostomias scintilans Stonias atriventer Antopus Spp. Scopelarchidae Aulopus Spp. Scopelarchidae Aulopus Spp. Scopelarchidae Autopus Spp. Lampanyctus regalis Lampanyctus regalis Lampanyctus ritteri

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Notolychnus valdiviae Notoscopelus resplendens Stenobrachius leucopsarus Triphoturus mexicanus Centrobranchus spp. Diogenichthys spp. Diogenichthys allanticus Diogenichthys laternatus	389 389 389 100 230	740 715 112 233	10 10 57 57 57 57 57 52 232	3 54 562 347 1887	2 2 1 2 2 3 3 4 4 5 5 1 5 6 6 5 6 5 6 5 6 5 6 5 6 5 6 5 6	395 325 327 113	31 267 641 109 109	24 361 768 768 126 416	3 76 1069 1069 116	12 64 386 808 808 121 210
Electrona rissoi Onoichthys tenuiculus Hygophum spp. Hygophum atratum Hygophum proximum	2429	32044	33384	36 36 1	37 4 4 3	12 12 22 22 7	18816	126 47 96	181 91 138	27327
Lowelna reinnaforii Lowelna rara Myctophum aurolaternatum Myctophum nitidulum Protomyctophum crockeri Symbolophorus californiensis	330 370 306 306	344 184 3455 3999	33 211 132 243	29 11 293 146 164	11 312 102 103	243 243 60 236	22 7 2 2 3 3 1 4 2 5 4 1 1 6 5 1 1 6 5 1 1 6 5 1 1 6 5 1 1 6 5 1 6 1 6	13 13 20 216 90	1 1 4 2 0 0 4 0 0 4 0 0 1 1 1 1 1 1 1 1 1 1 1 1	141 44 101 101 4 101 109 22
Synodus spp. Bregmaceros spp. Marluccius productus Motidae	3 41 351 351	3 6 6 3 6 6 9 6 9 6 9 6 9 6 9 6 9 9 6 9 9 9 9	24 44 17 17 17 17 17 17 17 17 17 17 17 17 17	54 92 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4 6 1 1 6 0	8 90 6 30 70 10 10 0	331 331 331 331	541 541 75	340 340 32	4 68 119 13 13
maclouides Brosmophycis marginata Carapidae Chilara taylori Ophidion scrippsae	1,689	11 18 133	52004124	137	266	122 137	174	16 16 15	10 10 17 44	44 88 13 13 13 13 14 15 16 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Antennariidae Ceratioidei Lophiidae Gobiesocidae Exocoetidae Cololabis saira Atherinidae	7 N N N N N N N N N N N N N N N N N N N	2817731	1111014 c	2 2 1 1 1 2 7 7		23.11.12.	100 100 100 100 100 100 100 100 100 100	16 1 28 28 3	50 1 6 6 7	101 101 101 101 101 101 101 101 101 101
Melamphaes spp. Poromitra spp. Scopeloberyx robustus Scopelogadus bispinosus Fistulariidae Macroramphosus gracilis	202 11 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CA LW DW414110	151	189 288 15 15	166 44 6	1388	212 212 26 26 5	2388	209 17 17 60 1	157 199 26 1

TABLE 5. (cont.)

Name	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Agonidae Anoplopoma fimbria Scotradae Nectidae Hexagrammidae Hexagrammidae Ophiodon elongatus Oxylebius pictus Scorpaenias spp. Scorpaenias spp. Scorpaenias spp. Scorpaenias spp. Schastes spp. Schastes spp. Prionotus spp. Blenniolaei Bathymasteridae Hupsoblennius spp. Clinidae Gobiidae Icosteus aenigmaticus Labridae Pomacentridae Pomacentridae	600 600 600 600 600 600 600 600 600 600	86 1 1 1 1 88 6 1 1 1 1 1 1 1 1 1 1 1 1	112 211 221 16 32 122 122 123 138 138 138	2 2 3 1 1 1 3 1 1 1 3 1 1 1 1 1 1 1 1 1	0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	66 1 2 2 3 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 10 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 2 1 6 2 7 8 8 1 1 1 1 0 4 1 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6022 6022 1022 1122 1122 1133 1148	8 1 8 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Hypsypops rubicundus Mugil spp. Mugil spp. Brandidae Brandidae Brandidae Seriola lalandi Trachurus symmetricus Coryphaene hippurus Gerreidae Gerreidae Gerreidae Gerreidae Hulidae Grandidatilus princeps Mullidae Priacanthidae Sciannidae Sciannidae Sciannidae Sciannidae Gempylidae Sciannidae	2 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2 4 4 1 1 1 2 9 1 1 1 1 1 2 9 1 1 1 1 1 1 2 9 1 1 1 1	322 32 10 10 10 10 10 10 10 10 10 10 10 10 10	3733 3733 119	9 9 131121121114 1311121114	1	1 11 80 11 120 1954 11 1 2 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 1 24 27 1 28 89 1 1 29 4 60 7 80 80 1 1 60 80 80 80 80 80 80 80 80 80 80 80 80 80	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0

1958 1959 1960	124 8 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	258 361 482
1957	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	193
1956	120 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	103
1955	1 1 2 2 2 2 2 2 2 2 2 3 3 3 3 4 4 4 4 4 4 4	124
1954	125 125 138 138 147 147 147 147 147 147 147 147 147 147	63
1953	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	47.0
1952	1 1 2 2 2 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	253
1951	22 4 2 2 2 2 2 4 2 2 2 2 2 2 2 2 2 2 2	229
	Thunnus albacares Sphyraena argentea Sphyraena argentea Trichturidae Nomeidae Peptrilus simillimus Tetragonurus cuvieri Tetragonurus cuvieri Tetragonurus cuvieri Tetragonurus cuvieri Tetragonurus sphilumos Bothidae Bothidae Bothidae Citharichthys sppins Citharichthys platophrys Citharichthys platophrys Citharichthys praginaeus Citharichthys stigmaeus Citharichthys stigmaeus Citharichthys sunthostigma Hippoglossina sppins Hippoglossina stomata Paralichthys californicus Systreury Rystreury Rystreury Rystreury Siolepis Clyptocephalus zachirus Glyptocephalus zachirus Hippoglostia solepis Colosetta isolepis Lyopsetta exilis Rystreury Reprophrys vetulus Peuronichthys ceincsus Pleuronichthys veticalis Pleuronichthys veticalis Pleuronichthys wetlatus Pleuronichthys veticalis Pleuronichthys veticalis Psettichthys Ballstidae	Tetraodontidae Disintegrated fish larva

TABLE 6. List of stations which were occupied twice in one month during 1959.

Stat	ion	Month
83.0	70.0	2
87.0	60.0	2
87.0	70.0	2
87.0	80.0	2
87.0	90.0	2
90.0	60.0	2
90.0	70.0	2
90.0	80.0	2
90.0	90.0	2
123.0	42.0	2
119.0	33.0	6
120.0	25.0	6
120.0	30.0	6
120.0	35.0	6
103.0	30.0	8
103.0	35.0	8
103.0	40.0	8

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